

## CHAPTER 17: SUMMARY OF IMPACTS

- 17.1. This chapter of the EIA Report summarises the impact assessment conclusions within each of the technical chapters (Chapters 8 to 15), together with the relevant impact assessment conclusions from the 2012 Offshore ES. In each case residual impact significance is presented for all impacts. This ensures that the conclusions of the impact assessment for the optimised Seagreen Project, for which consent is being sought, is presented in full, including those topics/impacts scoped out of the 2018 EIA Report, in line with the 2017 Scoping Opinion. Impact summaries from topics addressed in this EIA report are presented in Tables 17.1 to 17.8.
- 17.2. A Habitats Regulation Appraisal has also been completed and forms Chapter 16 of this EIA Report. A summary of impacts for the Habitat Regulations Appraisal (HRA) is presented separately within Chapter 16 and is not repeated here.
- 17.3. For those parameters for which no change was proposed and for those topics and receptors where no change in impact significance was anticipated, then no further assessment has been undertaken as part of this EIA (in line with the 2017 Scoping Opinion). Impacts from topics scoped out of the 2018 EIA Report are presented in Tables 17.9 to 17.13. These impacts are as presented in the 2012 Offshore ES and the conclusions remain valid. In order to provide a comparison of those impacts reassessed, where there is no difference in conclusions of impact significance between the 2012 and the 2018 EIA Report, this is noted as 'No change' and where a difference is identified, a rationale is provided. In instances where impact assessment conclusions are the same for Project Alpha and Project Bravo, these are presented combined, to avoid repetition.
- 17.4. It should be noted that in some instances, the impact assessment may differ in scope between the 2012 Offshore ES and the 2018 EIA Report. For example, for certain topics the 2012 assessment focused on Project Alpha and Project Bravo in isolation rather than the projects combined, in other instances some impacts may not have been identified in 2012 but have been identified through scoping and consultation in 2018. In instances where impacts are not assessed this is stated as 'not assessed' and justification is provided.
- 17.5. For the purposes of this EIA Report, potential impacts identified as major or moderate are generally considered to be significant in EIA terms, while impacts identified as minor or negligible are generally considered to be not significant in EIA terms. Where there are exceptions this is highlighted. It should be noted that the 2012 Offshore ES, uses different terminology for a number of technical chapters. For example, Chapter 14 (Commercial Fisheries), Chapter 15 (Shipping and Navigation) and Chapter 18 (Military and Civil Aviation) of the 2012 Offshore ES have assessed impacts as either 'not significant' or 'significant' and impacts are reported as such. In addition, for some topics the terms 'Low, medium, effect' etc. have been adopted, rather than impact significance. The different terms used are considered interchangeable i.e. low (=minor), medium (=moderate) high (=major) impact and terms used were in accordance with the relevant guidance at the time, however, for consistency impacts are reported in line with other topics as negligible, minor, moderate or major.
- 17.6. As set out within Chapter 6 (EIA Process) of this EIA Report, impacts reported can be adverse, beneficial or neutral and within this EIA Report, all impacts reported are adverse unless identified otherwise.

- 17.7. The summary of impact assessments is provided in the following tables;
- Table 17.1 – Ornithology;
  - Table 17.2 – Natural Fish and Shellfish Resource;
  - Table 17.3 – Marine Mammals;
  - Table 17.4 – Commercial Fisheries
  - Table 17.5 – Shipping and Navigation;
  - Table 17.6 – Seascape, Landscape and Visual Amenity (SLVIA);
  - Table 17.7 – Military and Civil Aviation; and
  - Table 17.8 – Socio-economics.
- 17.8. Topics scoped out of this EIA Report (with impacts as presented in the 2012 Offshore ES):
- Table 17.9 – Physical Environment;
  - Table 17.10 – Water and Sediment Quality
  - Table 17.11 – Benthic Ecology and Intertidal Ecology;
  - Table 17.12 – Archaeology and Cultural Heritage; and
  - Table 17.13 – Other Marine Users and Activities.
- 17.9. Cumulative impacts can occur when the impacts from one project on an identified receptor combine (through either spatial or temporal overlap) with similar impacts from other projects on the same receptor. Projects and plans that have the potential to give rise to cumulative impacts are identified and considered within the cumulative assessment. Where no impact pathway is identified, projects are screened out of further assessment.
- 17.10. Cumulative impact assessment conclusions from the 2018 EIA report are presented together with assessment conclusions from the 2012 Offshore ES and these are set out in tables 17.1 to 17.13. It should be noted that the cumulative assessment between 2012 and 2018 may differ in projects assessed, as they are based on the list of cumulative projects agreed with Marine Scotland and other stakeholders at the time of assessment.
- 17.11. As set out within Chapter 6 (EIA Process), the cumulative impact assessment for the 2018 EIA Report considers the offshore Transmission Asset as a separate project as this was licensed in 2014 and remains unchanged.
- 17.12. The impact assessment conclusions for the offshore Transmission Asset from the 2012 Offshore ES are also presented in the topic tables below, to ensure the impact assessment for all offshore components of the Seagreen Project are summarised, including the optimised Project Alpha and Project Bravo Offshore Wind Farms (OWFs) and the previously licensed offshore Transmission Asset.

## SUMMARY OF IMPACTS

17.13. In developing the optimised Seagreen Project, Seagreen's aim has been to ensure that, wherever possible, the revised design delivers wind farm projects that have impacts which are no greater than those identified in the original project design, which received development consent in October 2014. With the application of appropriate mitigation, the significance of impacts are assessed to be no greater than those of the already consented projects, and a reduction in impact significance is concluded for many receptors. Of particular note are the following conclusions:

- No significant adverse impacts are predicted for ornithological receptors, either for Project Alpha or Project Bravo in isolation, combined or cumulatively with other plans and projects;
- No significant adverse impacts are predicted for marine mammal receptors, either for Project Alpha, or Project Bravo in isolation, combined, or cumulatively with other plans and projects;
- Significant adverse impacts are only concluded for the SLVIA in this EIA Report with regard to impact on visual amenity from two viewpoints for Project Alpha and the same two viewpoints for Project Alpha and Bravo combined. However, these conclusions are in line with the originally consented project and therefore no change in impact significance is predicted.

Table 17.1 Ornithology Summary of Impacts

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
<b>Project Alpha</b>					
Guillemot	Disturbance and displacement	C, O, D	Minor	Negligible to Minor	Fewer WTGs, occupying reduced area, updated displacement risk assessment methods and assumptions.
Guillemot	Indirect effects of construction on prey	C D	<b>Moderate</b> Negligible	Not assessed	Scoped out
Guillemot	Barrier effects	O	Minor	Not assessed	Scoped out
Razorbill	Disturbance and displacement	C, O, D	Minor	Negligible to Minor	Fewer WTGs, occupying reduced area, updated displacement risk assessment methods and assumptions.
Razorbill	Indirect effects of construction on prey	C D	<b>Moderate</b> Negligible	Not assessed	Scoped out
Razorbill	Barrier effects	O	Minor	Not assessed	Scoped out
Puffin	Disturbance and displacement	C, O, D	Minor	Minor	No change
Puffin	Indirect effects of construction on prey	C D	<b>Moderate</b> Negligible	Not assessed	Scoped out
Puffin	Barrier effects	O	Minor	Not assessed	Scoped out
Kittiwake	Disturbance	C, O, D	Minor	Not assessed	Scoped out
Kittiwake	Displacement	C, D, O	Minor Minor	Not assessed Minor	Scoped out No change
Kittiwake	Indirect effects of construction on prey	C D	Minor Negligible	Not assessed	Scoped out

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
Kittiwake	Collision mortality	O	Minor (National) <b>Moderate (Regional)</b>	Minor (National/Regional)	Higher blade clearance and reduced blade swept area in collision risk zone. Fewer WTGs. Use of updated CRM methods and assumptions.
Kittiwake	Barrier effects	O	Minor	Not assessed	Scoped out
Gannet	Disturbance and displacement	C, D	Minor	Not assessed	Scoped out
Gannet	Indirect effects of construction on prey	D	Negligible	Not assessed	Scoped out
Gannet	Collision mortality	O	<b>Moderate (National/Regional)</b>	Minor to Moderate	Higher blade clearance and reduced blade swept area in collision risk zone. Fewer WTGs. Use of updated CRM methods and assumptions.
Gannet	Barrier effects	O	Minor	Not assessed	Scoped out
Lesser Black-backed Gull	Disturbance and displacement	C, D	Minor	Not assessed	Scoped out
Lesser Black-backed Gull	Collision mortality	O	Minor (National/Regional)	Not assessed	Scoped out
Great Black-backed Gull	Disturbance and displacement	C, D	Negligible	Not assessed	Scoped out
Great Black-backed Gull	Collision mortality	O	Minor (National) <b>Major (Regional)</b>	Not assessed	Scoped out
Herring Gull	Disturbance and displacement	C, D	Minor	Not assessed	Scoped out
Herring Gull	Collision mortality	O	Minor (National) <b>Moderate (Regional)</b>	Minor (National/Regional)	Higher blade clearance and reduced blade swept area in collision risk zone. Fewer WTGs. Use of updated CRM methods and assumptions.

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
Arctic Tern	Disturbance and displacement	C D	Negligible	Not assessed	Scoped out
Arctic Tern	Indirect effects of construction on prey	C, D	Minor Negligible	Not assessed	Scoped out
<b>Project Bravo</b>					
Guillemot	Disturbance and displacement	C, O, D	Minor	Negligible to Minor	Fewer WTGs, occupying reduced area, updated displacement risk assessment methods and assumptions.
Guillemot	Indirect effects of construction on prey	C D	<b>Moderate</b> Negligible	Not assessed	Scoped out
Guillemot	Barrier effects	O	Minor	Not assessed	Scoped out
Razorbill	Disturbance and displacement	C, O, D	Minor	Negligible to Minor	Fewer WTGs, occupying reduced area, updated displacement risk assessment methods and assumptions.
Razorbill	Indirect effects of construction on prey	C D,	<b>Moderate</b> Negligible	Not assessed	Scoped out
Razorbill	Barrier effects	O	Minor	Not assessed	Scoped out
Puffin	Disturbance and displacement	C, O, D	Minor	Minor	No change
Puffin	Indirect effects of construction on prey	C, D	<b>Moderate</b> Negligible	Not assessed	Scoped out
Puffin	Barrier effects	O	Minor	Not assessed	Scoped out
Kittiwake	Disturbance	C, O, D	Minor	Not assessed	Scoped out

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
Kittiwake	Displacement	C, D O	Minor Minor	Not assessed Minor	Scoped out No change
Kittiwake	Indirect effects of construction on prey	C D	Minor Negligible	Not assessed	Scoped out
Kittiwake	Collision mortality	O	Minor (National) <b>Moderate (Regional)</b>	Minor (National/Regional)	Higher blade clearance and reduced blade swept area in collision risk zone. Fewer WTGs. Use of updated CRM methods and assumptions. Further analysis of population level effects using PVA.
Kittiwake	Barrier effects	O	Minor	Not assessed	Scoped out
Gannet	Disturbance and displacement	C, D	Minor	Not assessed	Scoped out
Gannet	Indirect effects of construction on prey	D	Negligible	Not assessed	Scoped out
Gannet	Collision mortality	O	<b>Moderate (National/Regional)</b>	Moderate (National/Regional) (Not Significant)	Higher blade clearance and reduced blade swept area in collision risk zone. Fewer WTGs. Use of updated CRM methods and assumptions. Further analysis of population level effects using PVA.
Gannet	Barrier effects	O	Minor	Not assessed	Scoped out
Lesser Black-backed Gull	Disturbance and displacement	C, D	Minor	Not assessed	Scoped out
Lesser Black-backed Gull	Collision mortality	O	Minor (National/Regional)	Not assessed	Scoped out
Great Black-backed Gull	Disturbance and displacement	C, D	Negligible	Not assessed	Scoped out

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
Great Black-backed Gull	Collision mortality	O	Minor (National) <b>Major (Regional)</b>	Not assessed	Scoped out
Herring Gull	Disturbance and displacement	C, D	Minor	Not assessed	Scoped out
Herring Gull	Collision mortality	O	Minor (National/Regional)	Minor	No change
Arctic Tern	Disturbance and displacement	C, D	Negligible	Not assessed	Scoped out
Arctic Tern	Indirect effects of construction on prey	C D	Minor Negligible	Not assessed	Scoped out
<b>Project Alpha and Project Bravo Combined</b>					
Guillemot	Disturbance and displacement	C, O, D	Minor	Negligible to Minor	Fewer WTGs, occupying reduced area, updated displacement risk assessment methods and assumptions.
Guillemot	Indirect effects of construction on prey	C D	<b>Moderate</b> Minor	Not assessed	Scoped out
Guillemot	Barrier effects	O	Minor	Not assessed	Scoped out
Razorbill	Disturbance and displacement	C, O, D	Minor	Negligible to Minor	Fewer WTGs, occupying reduced area, updated displacement risk assessment methods and assumptions.
Razorbill	Indirect effects of construction on prey	C D	<b>Moderate</b> Minor	Not assessed	Scoped out
Razorbill	Barrier effects	O	Minor	Not assessed	Scoped out
Puffin	Disturbance and displacement	C, O, D	Minor	Minor	No change
Puffin	Indirect effects of construction on prey	C D	<b>Moderate</b> Minor	Not assessed	Scoped out



Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
Puffin	Barrier effects	O	Minor	Not assessed	Scoped out
Kittiwake	Disturbance	C, O, D	Minor	Not assessed	Scoped out
Kittiwake	Displacement	C, D O	Minor Minor	Not assessed Minor	Scoped out No change
Kittiwake	Indirect effects of construction on prey	C D	Minor Minor	Not assessed	Scoped out
Kittiwake	Collision mortality	O	<b>Moderate (National)</b> <b>Major (Regional)</b>	Minor (National/Regional)	Higher blade clearance and reduced blade swept area in collision risk zone. Fewer WTGs. Use of updated CRM methods and assumptions. Further analysis of population level effects using PVA.
Kittiwake	Barrier effects	O	<b>Moderate</b>	Not assessed	Scoped out
Gannet	Disturbance and displacement	C, D	Minor	Not assessed	Scoped out
Gannet	Indirect effects of construction on prey	D	Negligible	Not assessed	Scoped out
Gannet	Collision mortality	O	<b>Moderate (National)</b> <b>Major (Regional)</b>	Moderate (National/Regional) (Not Significant)	Higher blade clearance and reduced blade swept area in collision risk zone. Fewer WTGs. Use of updated CRM methods and assumptions. Further analysis of population level effects using PVA.
Gannet	Barrier effects	O	Minor	Not assessed	Scoped out
Lesser Black-backed Gull	Disturbance and displacement	C, D	Minor	Not assessed	Scoped out
Lesser Black-backed Gull	Collision mortality	O	Minor (National) <b>Moderate (Regional)</b>	Not assessed	Scoped out

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
Great Black-backed Gull	Disturbance and displacement	C, D	Negligible	Not assessed	Scoped out
Great Black-backed Gull	Collision mortality	O	<b>Major (National/Regional)</b>	Not assessed	Scoped out
Herring Gull	Disturbance and displacement	C, D	Minor	Not assessed	Scoped out
Herring Gull	Collision mortality	O	Minor (National) <b>Moderate (Regional)</b>	Minor (National/Regional)	Higher blade clearance and reduced blade swept area in collision risk zone. Fewer WTGs. Use of updated CRM methods and assumptions.
Arctic Tern	Disturbance and displacement	C, D	Negligible	Not assessed	Scoped out
Arctic Tern	Indirect effects of construction on prey	C D	Minor Negligible	Not assessed	Scoped out
<b>Cumulative Impact Assessment</b>					
Guillemot	Disturbance and displacement	C, O, D	<b>Moderate</b>	Minor	Fewer WTGs, occupying reduced area, updated displacement risk assessment methods and assumptions.
Guillemot	Indirect effects of construction on prey	C D	<b>Major</b> Minor	Not assessed	Scoped out
Guillemot	Barrier effects	O	Not assessed	Not assessed	Scoped out
Razorbill	Disturbance and displacement	C, D O	<b>Moderate</b> <b>Major</b>	Minor	Fewer WTGs, occupying reduced area, updated displacement risk assessment methods and assumptions.
Razorbill	Indirect effects of construction on prey	C D	<b>Major</b> Minor	Not assessed	Scoped out
Razorbill	Barrier effects	O	Not assessed	Not assessed	Scoped out

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
Puffin	Disturbance and displacement	C, O, D	<b>Moderate</b>	Minor	Fewer WTGs, occupying reduced area, updated displacement risk assessment methods and assumptions.
Puffin	Indirect effects of construction on prey	C D	<b>Major</b> Minor	Not assessed	Scoped out
Puffin	Barrier effects	O	Not assessed	Not assessed	Scoped out
Kittiwake	Disturbance	C, O, D	<b>Moderate</b>	Not assessed	Scoped out
Kittiwake	Displacement	C, D O	<b>Moderate</b> <b>Major</b>	Not assessed Minor	Scoped out Fewer WTGs occupying reduced area. Updated displacement risk assessment methods and assumptions. Further analysis of population level effects using PVA.
Kittiwake	Indirect effects of construction on prey	C D	<b>Moderate</b> Minor	Not assessed	Scoped out
Kittiwake	Collision mortality	O	<b>Major</b>	Minor	Higher blade clearance and reduced blade swept area in collision risk zone. Fewer WTGs. Use of updated CRM methods and assumptions. Further analysis of population level effects using PVA.
Kittiwake	Barrier effects	O	Minor	Not assessed	Scoped out
Gannet	Disturbance and displacement	C, D	<b>Moderate</b>	Not assessed	Scoped out
Gannet	Indirect effects of construction on prey	D	Minor	Not assessed	Scoped out

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
Gannet	Collision mortality	O	Major	Moderate (Not Significant)	Higher blade clearance and reduced blade swept area in collision risk zone. Fewer WTGs. Use of updated CRM methods and assumptions. Further analysis of population level effects using PVA.
Gannet	Barrier effects	O	Minor	Not assessed	Scoped out
Lesser Black-backed Gull	Disturbance and displacement	C, D	Moderate	Not assessed	Scoped out
Lesser Black-backed Gull	Collision mortality	O	Moderate	Not assessed	Scoped out
Great Black-backed Gull	Disturbance and displacement	C, D	Minor	Not assessed	Scoped out
Great Black-backed Gull	Collision mortality	O	Major	Not assessed	Scoped out
Herring Gull	Disturbance and displacement	C, D	Moderate	Not assessed	Scoped out
Herring Gull	Collision mortality	O	Major/Moderate	Minor	Higher blade clearance and reduced blade swept area in collision risk zone. Fewer WTGs. Use of updated CRM methods and assumptions.
Arctic Tern	Disturbance and displacement	C, D	Minor	Not assessed	Scoped out
Arctic Tern	Indirect effects of construction on prey	C D	Moderate Minor	Not assessed	Scoped out
<b>Transmission Asset Project</b>					
Gannet	Disturbance effects of OSP construction	C, D	Minor	Not assessed	The potential impacts of the Transmission Asset have not been assessed separately in the 2018 EIA. This project was licenced in 2014 and remains unchanged, it is
Gannet	Indirect effects of OSP construction	C, D	Minor	Not assessed	
Gannet	Disturbance effects of export cable installation	C, D	Minor	Not assessed	

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
Gannet	Indirect effects of export cable installation	C, D	Minor	Not assessed	therefore considered a separate project. Potential impacts associated with the Transmission Asset are given consideration as part of the cumulative assessment within the 2018 EIA.
Gannet	Operation of Transmission Asset Project	O	Minor	Not assessed	
Kittiwake	Disturbance effects of OSP construction	C, D	Minor	Not assessed	
Kittiwake	Indirect effects of OSP construction	C, D	Minor	Not assessed	
Kittiwake	Disturbance effects of export cable installation	C, D	Negligible	Not assessed	
Kittiwake	Indirect effects of export cable installation	C, D	Minor	Not assessed	
Kittiwake	Operation of Transmission Asset Project	O	Minor	Not assessed	
Great Black-backed Gull	Disturbance effects of OSP construction	C, D	Negligible	Not assessed	
Great Black-backed Gull	Indirect effects of OSP construction	C, D	Negligible	Not assessed	
Great Black-backed Gull	Disturbance effects of export cable installation	C, D	Negligible	Not assessed	
Great Black-backed Gull	Indirect effects of export cable installation	C, D	Negligible	Not assessed	
Great Black-backed Gull	Operation of Transmission Asset Project	O	Negligible	Not assessed	
Guillemot	Disturbance effects of OSP construction	C, D	Minor	Not assessed	
Guillemot	Indirect effects of OSP construction	C, D	Minor	Not assessed	
Guillemot	Disturbance effects of export cable installation	C, D	Minor	Not assessed	

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
Guillemot	Indirect effects of export cable installation	C, D	Minor	Not assessed	
Guillemot	Operation of Transmission Asset Project	O	Minor	Not assessed	
Razorbill	Disturbance effects of OSP construction	C, D	Negligible	Not assessed	
Razorbill	Indirect effects of OSP construction	C, D	Negligible	Not assessed	
Razorbill	Disturbance effects of export cable installation	C, D	Negligible	Not assessed	
Razorbill	Indirect effects of export cable installation	C, D	Negligible	Not assessed	
Razorbill	Operation of Transmission Asset Project	O	Negligible	Not assessed	
Puffin	Disturbance effects of OSP construction	C, D	Minor	Not assessed	
Puffin	Indirect effects of OSP construction	C, D	Minor	Not assessed	
Puffin	Disturbance effects of export cable installation	C, D	Minor	Not assessed	
Puffin	Indirect effects of export cable installation	C, D	Minor	Not assessed	
Puffin	Operation of Transmission Asset Project	O	Minor	Not assessed	

**Table 17.2 Natural Fish and Shellfish Resource Summary of Impacts**

Receptor	Potential impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
<b>Project Alpha</b>					
All species except herring	Noise – mortality and injury	C	Negligible	Negligible	No change
Herring	Noise – mortality and injury	C	Minor	Negligible	Differences relate to developments made in underwater noise modelling, the use of updated best practice guidance for assessment and a reduction in the number of WTGs
Sandeel	Noise – behaviour (disturbance)	C	Minor	Negligible	Differences relate to developments made in underwater noise modelling, the use of updated best practice guidance for assessment and a reduction in the number of WTGs
Herring	Noise – behaviour (disturbance)	C	Moderate	Minor	Differences relate to developments made in underwater noise modelling, the use of updated best practice guidance for assessment and a reduction in the number of WTGs
All species except herring	Noise – mortality and injury	C	Negligible	Negligible	No change
Sandeel	Seabed habitat disturbance	C	Minor	Not assessed	Scoped out
All species except sandeel	Seabed habitat disturbance	C	Negligible	Not assessed	Scoped out
All species	Permanent loss of habitat	C	Negligible	Not assessed	Scoped out
All species	Increased levels of suspended solids and remobilisation of contaminants	C O	Negligible Minor	Not assessed	Scoped out

Receptor	Potential impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
Sensitive species (e.g. eel, salmon, sea trout, European plaice, river lamprey, sea lamprey and all demersal elasmobranchs)	Disturbance effects of Electromagnetic Fields (EMF)	O	Minor	Not assessed	Scoped out
Species not stated to be sensitive to EMF	Disturbance effects of Electromagnetic Fields (EMF)	O	Negligible	Not assessed	Scoped out
All species	Operational noise	O	Negligible	Not assessed	Scoped out
All species	Disturbance of seabed habitats	O	Negligible	Not assessed	Scoped out
All species	Creation of new habitats - fish aggregation	O	Negligible	Not assessed	Scoped out
All species	Seabed Habitat Disturbance and loss	D	Negligible	Not assessed	Scoped out
<b>Project Bravo</b>					
All species except herring	Noise - mortality and injury	C	Negligible	Negligible	No change
Herring	Noise - mortality and injury	C	Minor	Negligible	Differences relate to developments made in underwater noise modelling, the use of updated best practice guidance for assessment and a reduction in the number of WTGs
Herring	Noise - behaviour (disturbance)	C	Moderate	Minor	Differences relate to developments made in underwater noise modelling, the use of updated best practice guidance for assessment and a reduction in the number of WTGs



Receptor	Potential impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
All species except herring	Noise – behaviour (disturbance)	C	Negligible	Negligible-Minor Other Group 3 (high hearing sensitivity) species such as cod and sprat Minor, other Groups Negligible	Differences relate to developments made in underwater noise modelling, the use of updated best practice guidance for assessment and a reduction in the number of WTGs
Sandeel	Seabed habitat disturbance	C	Minor	Not assessed	Scoped out
All species except sandeel	Seabed habitat disturbance	C	Negligible	Not assessed	Scoped out
All species	Permanent loss of habitat	C	Negligible	Not assessed	Scoped out
All species	Increased levels of suspended solids and remobilisation of contaminants	C, O	Negligible	Not assessed	Scoped out
Sensitive species (e.g. eel, salmon, sea trout, European plaice, river lamprey, sea lamprey and all demersal elasmobranchs)	Disturbance effects of Electromagnetic Fields (EMF)	O	Minor	Not assessed	Scoped out
Species not stated to be sensitive to EMF	Disturbance effects of Electromagnetic Fields (EMF)	O	Negligible	Not assessed	Scoped out
All species	Operational noise	O	Negligible	Not assessed	Scoped out
All species	Disturbance of seabed habitats	O	Negligible	Not assessed	Scoped out
All species	Creation of new habitats – fish aggregation	O	Negligible	Not assessed	Scoped out
All species	Seabed habitat disturbance and loss	D	Negligible	Not assessed	Scoped out

Receptor	Potential impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
<b>Project Alpha and Project Bravo Combined</b>					
Herring	Noise – mortality and injury	C	Minor	Negligible	Differences relate to developments made in underwater noise modelling, the use of updated best practice guidance for assessment and a reduction in the number of WTGs
All species except herring	Noise – mortality and injury	C	Negligible	Negligible	No change
Herring	Noise – behaviour (disturbance)	C	<b>Major</b>	Minor	Differences relate to developments made in underwater noise modelling, the use of updated best practice guidance for assessment and a reduction in the number of WTGs
Sandeel	Noise – behaviour (disturbance)	C	Minor	Negligible	Differences relate to developments made in underwater noise modelling, the use of updated best practice guidance for assessment and a reduction in the number of WTGs
All species except herring and sandeel	Noise – behaviour (disturbance)	C	Negligible	Negligible	No change
Sandeel	Seabed habitat disturbance	C	Minor	Not assessed	Scoped out
All species except sandeel	Seabed habitat disturbance	O	Negligible	Not assessed	Scoped out
All species	Seabed habitat disturbance	O	Negligible	Not assessed	Scoped out
All species	Seabed habitat loss	C, O	Negligible	Not assessed	Scoped out
All species	Creation of new habitats – fish aggregation	O	Negligible	Not assessed	Scoped out
Demersal species and migratory species in shallow waters	Disturbance effects of Electromagnetic Fields (EMF)	O	Minor	Not assessed	Scoped out
All species	Seabed habitat disturbance	D	Negligible	Not assessed	Scoped out

Receptor	Potential impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
<b>Optimised Seagreen Project Cumulative Impacts</b>					
Herring	Noise – mortality and injury	C	Minor	Negligible	Differences relate to developments made in underwater noise modelling, the use of updated best practice guidance for assessment and a reduction in the number of WTGs
All species except herring	Noise – mortality and injury	C	Negligible	Negligible	No change
Herring	Noise – behaviour (disturbance)	C	Major	Minor	Differences relate to developments made in underwater noise modelling, the use of updated best practice guidance for assessment and a reduction in the number of WTGs
Sandeel and salmon	Noise – behaviour (disturbance)	C	Minor	Negligible	Differences relate to the developments made in underwater noise modelling and guidelines used to inform the assessment and updates to baseline information
All species except salmon, herring and sandeel	Noise – behaviour (disturbance)	C	Negligible	Negligible	No change
All species	Seabed habitat disturbance and loss	C, O,D	Negligible	Not assessed	Scoped out
Sensitive species (e.g. eel, salmon, sea trout, European plaice, river lamprey, sea lamprey and all demersal elasmobranchs)	Disturbance effects of Electromagnetic Fields (EMF)	O	Minor	Not assessed	Scoped out
Species not stated to be sensitive to EMF	Seabed habitat disturbance	O	Negligible	Not assessed	Scoped out
All species	Creation of new habitats – fish aggregation	O	Negligible	Not assessed	Scoped out

Receptor	Potential impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
<b>Transmission Asset</b>					
All species	Underwater noise	C	Negligible	Not assessed	The potential impacts of the Transmission Asset have not been assessed separately in the 2018 EIA. This project was licenced in 2014 and remains unchanged, it is therefore considered a separate project. Potential impacts associated with the Transmission Asset are given consideration as part of the cumulative assessment within the 2018 EIA.
All species	Seabed habitat disturbance	C	Negligible	Not assessed	
All species	Permanent loss of habitat	C	Negligible	Not assessed	
All species	Increased suspended sediment and remobilisation of contaminants	C	Negligible	Not assessed	
Sensitive species (e.g. eel, salmon, sea trout, European plaice, river lamprey, sea lamprey and all demersal elasmobranchs)	Effect of electromagnetic fields (EMF) (export cables)	O	Minor	Not assessed	
Species not stated to be sensitive to EMF	Effect of electromagnetic fields (EMF) (export cables)	O	Negligible	Not assessed	
All species	Creation of new habitats - fish aggregation	O	Negligible	Not assessed	
All species	Increased suspended sediments and mobilisation of contaminants	O	Negligible	Not assessed	
All species	Seabed habitat disturbance due to OSP and cable removal	D	Negligible	Not assessed	

**Table 17.3 Marine Mammals Summary of Impacts**

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
<b>Project Alpha</b>					
Harbour seal	Injury (PTS) – pile driving	C	<b>Moderate</b>	Negligible	Reduced population level and at-sea densities of harbour seal, fewer WTGs and updated approach to assessment including noise modelling and frequency weighting
Grey seal	Injury (PTS) – pile driving	C	Minor	Negligible	Updated approach to assessment including noise modelling, frequency weighting and fewer WTGs
Bottlenose dolphin	Injury (PTS) – pile driving	C	Minor	Negligible	Updated approach to assessment including noise modelling, frequency weighting and fewer WTGs
Harbour porpoise	Injury (PTS) – pile driving	C	Minor	Negligible	Updated approach to assessment including noise modelling and fewer WTGs
Minke whale	Injury (PTS) – pile driving	C	Minor	Negligible	Updated approach to assessment including noise modelling and fewer WTGs
White-beaked dolphin	Injury (PTS) – pile driving	C	Negligible	Negligible	No change
Harbour seal	Disturbance – pile driving	C	<b>Moderate</b>	Negligible	Reduced population level and at-sea densities of harbour seal, fewer WTGs and updated approach to assessment including noise modelling and dose-response curve

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
Grey seal	Disturbance – pile driving	C	Minor	Negligible	Updated approach to assessment including noise modelling, dose-response curve and fewer WTGs
Bottlenose dolphin	Disturbance – pile driving	C	Minor	Minor	No change
Harbour porpoise	Disturbance – pile driving	C	Minor	Minor	No change
Minke whale	Disturbance – pile driving	C	Minor	Minor	No change
White-beaked dolphin	Disturbance – pile driving	C	Negligible	Minor	Updated baseline and updated approach to assessment including noise modelling
All species	Underwater noise, injury or disturbance – vessels	C	Negligible	Not assessed	Scoped out
All species	Collision risk, injury or death – vessels	C	Negligible	Not assessed	Scoped out
All species	Changes to water quality (accidental release of contaminants)	C	Negligible	Not assessed	Scoped out
Grey and harbour seal	Changes to water quality (suspended sediment)	C	Negligible	Not assessed	Scoped out
Cetaceans	Changes to water quality (suspended sediment)	C	Minor	Not assessed	Scoped out
Harbour seal	Changes to prey resource	C	Minor	Not assessed	Scoped out
Grey seal and cetaceans	Changes to prey resource	C	Negligible	Not assessed	Scoped out
All species	Underwater noise, injury or disturbance – WTGs	O	Negligible	Not assessed	Scoped out
All species	Underwater noise, injury or disturbance – vessels	O	Negligible	Not assessed	Scoped out
All species	Barrier effects	O	Negligible	Not assessed	Scoped out

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
All species	Collision risk, injury of death - vessels	O	Negligible	Not assessed	Scoped out
All species	Changes to water quality (accidental release of contaminants)	O	Negligible	Not assessed	Scoped out
All species	EMF, behavioural change	O	Negligible	Not assessed	Scoped out
All species	Underwater noise, injury or disturbance - cutting	D	Minor	Not assessed	Scoped out
All species	Underwater noise, injury or disturbance - vessels	D	Negligible	Not assessed	Scoped out
All species	Collision risk, injury of death - vessels	D	Negligible	Not assessed	Scoped out
All species	Changes to water quality (accidental release of contaminants)	D	Negligible	Not assessed	Scoped out
Grey and harbour seal	Changes to water quality (suspended sediment)	D	Minor	Not assessed	Scoped out
Cetaceans	Changes to water quality (suspended sediment)	D	Negligible	Not assessed	Scoped out
Harbour seal	Changes to prey resource	D	Minor	Not assessed	Scoped out
Grey seal and cetaceans	Changes to prey resource	D	Negligible	Not assessed	Scoped out

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
<b>Project Bravo</b>					
Harbour seal	Injury (PTS) - pile driving	C	<b>Moderate</b>	Negligible	Reduced population level and at-sea densities of harbour seal, fewer WTGs and updated approach to assessment including noise modelling and frequency weighting
Grey seal	Injury (PTS) - pile driving	C	Minor	Negligible	Updated approach to assessment including noise modelling, frequency weighting and fewer WTGs
Bottlenose dolphin	Injury (PTS) - pile driving	C	Minor	Negligible	Updated approach to assessment including noise modelling, frequency weighting and fewer WTGs
Harbour porpoise	Injury (PTS) - pile driving	C	Minor	Negligible	Updated approach to assessment including noise modelling and fewer WTGs
Minke whale	Injury (PTS) - pile driving	C	Minor	Negligible	Updated approach to assessment including noise modelling and fewer WTGs
White-beaked dolphin	Injury (PTS) - pile driving	C	Negligible	Negligible	No change



Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
Harbour seal	Disturbance – pile driving	C	Moderate	Negligible	Reduced population level and at-sea densities of harbour seal, fewer WTGs and updated approach to assessment including noise modelling and dose-response curve
Grey seal	Disturbance – pile driving	C	Minor	Negligible	Updated approach to assessment including noise modelling, dose-response curve and fewer WTGs
Bottlenose dolphin	Disturbance – pile driving	C	Minor	Minor	No change
Harbour porpoise	Disturbance – pile driving	C	Minor	Minor	No change
Minke whale	Disturbance – pile driving	C	Minor	Minor	No change
White-beaked dolphin	Disturbance – pile driving	C	Negligible	Minor	Updated baseline and updated approach to assessment including noise modelling and fewer WTGs
All species	Underwater noise, injury or disturbance – vessels	C	Negligible	Not assessed	Scoped out
All species	Collision risk, injury of death – vessels	C	Negligible	Not assessed	Scoped out
All species	Changes to water quality (accidental release of contaminants)	C	Negligible	Not assessed	Scoped out
Grey and harbour seal	Changes to water quality (suspended sediment)	C	Negligible	Not assessed	Scoped out
Cetaceans	Changes to water quality (suspended sediment)	C	Minor	Not assessed	Scoped out

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
Harbour seal	Changes to prey resource	C	Minor	Not assessed	Scoped out
Grey seal and cetaceans	Changes to prey resource	C	Negligible	Not assessed	Scoped out
All species	Underwater noise, injury or disturbance - WTGs	O	Negligible	Not assessed	Scoped out
All species	Underwater noise, injury or disturbance- vessels	O	Negligible	Not assessed	Scoped out
All species	Barrier effects	O	Negligible	Not assessed	Scoped out
All species	Collision risk, injury of death - vessels	O	Negligible	Not assessed	Scoped out
All species	Changes to water quality (accidental release of contaminants)	O	Negligible	Not assessed	Scoped out
All species	EMF, behavioural change	O	Negligible	Not assessed	Scoped out
All species	Underwater noise, injury or disturbance - cutting	D	Minor	Not assessed	Scoped out
All species	Underwater noise, injury or disturbance - vessels	D	Negligible	Not assessed	Scoped out
All species	Collision risk, injury of death - vessels	D	Negligible	Not assessed	Scoped out
All species	Changes to water quality (accidental release of contaminants)	D	Negligible	Not assessed	Scoped out
Grey and harbour seal	Changes to water quality (suspended sediment)	D	Minor	Not assessed	Scoped out
Cetaceans	Changes to water quality (suspended sediment)	D	Negligible	Not assessed	Scoped out
All species	Changes to prey resource	D	Negligible	Not assessed	Scoped out

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
<b>Project Alpha and Project Bravo Combined</b>					
Harbour seal	Injury (PTS) - pile driving	C	Major	Negligible	Reduced population level and at-sea densities of harbour seal, fewer WTGs and updated approach to assessment including noise modelling and frequency weighting
Grey seal	Injury (PTS) - pile driving	C	Minor	Negligible	Updated approach to assessment including noise modelling, frequency weighting and fewer WTGs
Bottlenose dolphin	Injury (PTS) - pile driving	C	Minor	Negligible	Updated approach to assessment including noise modelling, frequency weighting and fewer WTGs
Harbour porpoise	Injury (PTS) - pile driving	C	Minor	Negligible	Updated approach to assessment including noise modelling and fewer WTGs
Minke whale	Injury (PTS) - pile driving	C	Minor	Negligible	Updated approach to assessment including noise modelling and fewer WTGs
White-beaked dolphin	Injury (PTS) - pile driving	C	Minor	Negligible	Updated approach to assessment including noise modelling and fewer WTGs

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
Harbour seal	Disturbance – pile driving	C	Major	Negligible	Reduced population level and at-sea densities of harbour seal, fewer WTGs and updated approach to assessment including noise modelling and dose-response curve
Grey seal	Disturbance – pile driving	C	Minor	Negligible	Updated approach to assessment including noise modelling, dose-response curve and fewer WTGs
Bottlenose dolphin	Disturbance – pile driving	C	Minor	Minor	No change
Harbour porpoise	Disturbance – pile driving	C	Minor	Minor	No change
Minke whale	Disturbance – pile driving	C	Minor	Minor	No change
White-beaked dolphin	Disturbance – pile driving	C	Minor	Minor	No change
All species	Underwater noise, injury or disturbance- vessels	C	Minor	Not assessed	Scoped out
All species	Collision risk, injury of death – vessels	C	Minor	Not assessed	Scoped out
Grey and harbour seal	Changes to water quality	C	Minor	Not assessed	Scoped out
Cetaceans	Changes to water quality	C	Negligible	Not assessed	Scoped out
All species	Changes to prey resource	C	Negligible	Not assessed	Scoped out
All species	Underwater noise, injury or disturbance – WTGs	O	Minor	Not assessed	Scoped out
All species	Underwater noise, injury or disturbance – vessels	O	Minor	Not assessed	Scoped out

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
All species	Barrier effects	O	Minor	Not assessed	Scoped out
All species	Collision risk, injury of death - vessels	O	Minor	Not assessed	Scoped out
All species	Changes to water quality	O	Minor	Not assessed	Scoped out
All species	EMF, behavioural change	O	Negligible	Not assessed	Scoped out
All species	Underwater noise, injury or disturbance - cutting	D	Minor	Not assessed	Scoped out
All species	Underwater noise, injury or disturbance- vessels	D	Minor	Not assessed	Scoped out
All species	Collision risk, injury of death - vessels	D	Minor	Not assessed	Scoped out
All species	Changes to water quality (accidental release of contaminants)	D	Minor	Not assessed	Scoped out
All species	Changes to water quality (suspended sediment)	D	Minor	Not assessed	Scoped out
All species	Changes to prey resource	D	Minor	Not assessed	Scoped out
<b>Optimised Seagreen Project Cumulative Impacts</b>					
Harbour seal	Injury (PTS) - pile driving	C	<b>Major</b>	Not assessed (Scoped out through assessment)	Scoped out
Grey seal	Injury (PTS) - pile driving	C	<b>Moderate</b>	Not assessed (Scoped out through assessment)	Scoped out
Bottlenose dolphin	Injury (PTS) - pile driving	C	<b>Minor</b>	Not assessed (Scoped out through assessment)	Scoped out

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
Harbour porpoise	Injury (PTS) – pile driving	C	<b>Moderate</b>	Not assessed (Scoped out through assessment)	Scoped out
Minke whale	Injury (PTS) – pile driving	C	Minor	Not assessed (Scoped out through assessment)	Scoped out
White-beaked dolphin	Injury (PTS) – pile driving	C	Minor	Not assessed (Scoped out through assessment)	Scoped out
Harbour seal	Disturbance – pile driving	C	<b>Major</b>	Not assessed (scoped out through assessment)	Scoped out
Grey seal	Disturbance – pile driving	C	<b>Moderate</b>	Negligible	Updated approach to assessment including noise modelling, dose-response curve and fewer WTGs
Bottlenose dolphin	Disturbance – pile driving	C	<b>Moderate</b>	Minor	Updated approach to assessment including noise modelling and fewer WTGs
Harbour porpoise	Disturbance – pile driving	C	<b>Negligible</b>	Minor	Updated approach to assessment including noise modelling and fewer WTGs
Minke whale	Disturbance – pile driving	C	Minor	Minor	No change
White-beaked dolphin	Disturbance – pile driving	C	Minor	Minor	No change
All species	Underwater noise, injury or disturbance – vessels	C	Minor	Not assessed	Scoped out
All species	Collision risk, injury of death – vessels	C	Minor	Not assessed	Scoped out

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
Grey and harbour seal	Changes to water quality (suspended sediment)	C	Minor	Not assessed	Scoped out
Cetaceans	Changes to water quality (suspended sediment)	C	Negligible	Not assessed	Scoped out
Harbour seal, grey seal and bottlenose dolphin	Changes to prey resource	C	<b>Moderate</b>	Not assessed	Scoped out
Other cetacean species	Changes to prey resource	C	Minor	Not assessed	Scoped out
All species	Underwater noise, injury or disturbance - WTGs	O	Minor	Not assessed	Scoped out
All species	Underwater noise, injury or disturbance- vessels	O	Minor	Not assessed	Scoped out
All species	Barrier effects	O	Minor	Not assessed	Scoped out
All species	Collision risk, injury of death - vessels	O	Minor	Not assessed	Scoped out
All species	Changes to water quality	O	Minor	Not assessed	Scoped out
All species	EMF, behavioural change	O	Minor	Not assessed	Scoped out
All species	Underwater noise, injury or disturbance - cutting	D	<b>Moderate</b>	Not assessed	Scoped out
All species	Underwater noise, injury or disturbance - vessels	D	Minor	Not assessed	Scoped out
All species	Collision risk, injury of death - vessels	D	Minor	Not assessed	Scoped out
All species	Changes to water quality (accidental release of contaminants)	D	Minor	Not assessed	Scoped out
All species	Changes to water quality (suspended sediment)	D	Minor	Not assessed	Scoped out
All species	Changes to prey resource	D	Minor	Not assessed	Scoped out

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
<b>Transmission Asset</b>					
All species	Intertidal or terrestrial habitat exclusion	C	Negligible	Not assessed	The potential impacts of the Transmission Asset have not been assessed separately in the 2018 EIA. This project was licenced in 2014 and remains unchanged, it is therefore considered a separate project. Potential impacts associated with the Transmission Asset are given consideration as part of the cumulative assessment within the 2018 EIA.
All species	Underwater noise, injury or disturbance- all activities	C	Negligible	Not assessed	
All species	Collision risk, injury of death - vessels	C	Negligible	Not assessed	
All species	Underwater noise, injury or disturbance - vessels	O	Negligible	Not assessed	
All species	EMF - behavioural change	O	Negligible	Not assessed	
All species	Underwater noise, injury or disturbance - vessels	D	Negligible	Not assessed	
All species	Collision risk, injury of death - vessels	D	Negligible	Not assessed	



Table 17.4 Commercial Fisheries Summary of Impacts

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
<b>Project Alpha and Project Bravo in Isolation</b>					
All fisheries	Mortality or injury  Behaviour	C, D	Minor for herring, negligible all other species  <b>Moderate</b> (for herring), negligible for all other species.	Negligible for all species  Minor for herring and other Group 3 species and negligible for all other species.	The predictions of significant adverse impacts were arrived at in the 2012 Offshore ES because of predicted spatial overlap between modelled levels of underwater noise assumed to be disturbing and mapped herring spawning and nursery grounds. This EIA Report uses the same information on herring spawning and nursery areas and so differences relate to the underwater noise modelling and guidelines used to inform the assessment.
All fisheries	Potential impacts on commercially exploited fish and shellfish populations	O	Negligible to Minor	Not assessed	All potential impacts on natural fish and shellfish resources were scoped out for assessment in the 2018 EIA report with the exception of the impact of underwater noise during pile driving.
Scallop fishery Squid fishery	Temporary loss or restricted access to fishing grounds	C, D	Minor	Minor	No change
Scallop fishery Squid fishery	Complete loss or restricted access to fishing grounds	O	Minor	Minor	No change
Lobster and crab fishery	Temporary loss or restricted access to fishing grounds	C, D	Not assessed	Minor	There was no creeling activity within Project Alpha and Project Bravo at the time the 2012 Offshore ES was produced. Therefore, an assessment specific to the lobster and crab fishery was not undertaken in the 2012 EIA.
Lobster and crab fishery	Complete loss or restricted access to fishing grounds	O	Not assessed	Minor	There was no creeling activity within Project Alpha and Project Bravo at the time the 2012 Offshore ES was produced. Therefore, an assessment specific to the lobster and crab fishery was not undertaken in the 2012 EIA.
All fisheries	Safety issues for fishing vessels	C, O, D	Within acceptable limits	Within acceptable limits	No change

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
All fisheries	Increased steaming times to fishing grounds	C, O, D	Minor	Minor	No change
All fisheries	Displacement of fishing activity into other areas	C, D	As above for temporary loss or restricted access to traditional fishing grounds		
All fisheries	Displacement of fishing activity into other areas	O	As above for complete loss or restricted access to fishing grounds		
All fisheries	Interference with fishing activities (navigational conflict)	C, O, D	Minor	Minor	No change
<b>Project Alpha and Project Bravo Combined</b>					
All fisheries	Mortality or injury  Behaviour	C, D	Minor for herring, negligible all other species  <b>Major</b> (for herring), negligible for all other species.	Negligible for all species  Minor for herring and other Group 3 species and negligible for all other species.	The predictions of significant adverse impacts were arrived at in the 2012 Offshore ES because of predicted spatial overlap between modelled levels of underwater noise assumed to be disturbing and mapped herring spawning and nursery grounds. This EIA Report uses the same information on herring spawning and nursery areas and so differences relate to the underwater noise modelling and guidelines used to inform the assessment.
All fisheries	Potential impacts on commercially exploited fish and shellfish populations	O	Negligible to Minor	Not assessed	All potential impacts on natural fish and shellfish resources were scoped out for assessment in the 2018 EIA report with the exception of the impact of underwater noise during pile driving.

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
Scallop fishery Local vessels Nomadic vessels	Temporary loss or restricted access to fishing grounds	C, D	<b>Moderate (All scallop fisheries)</b>	Minor (Local vessels) Minor (Nomadic vessels)	The assessment in the 2012 Offshore ES was carried out for the scallop fishery as a whole. The assessment in the 2018 EIA has been carried out separately for local smaller scallop vessels and larger nomadic vessels with mitigation proposed for local smaller scallop vessels to reduce impact significance to minor during the construction phase.  For nomadic vessels the significance of the impact is considered minor in the 2018 EIA, taking account of the extent of grounds available to these vessels and therefore no further mitigation has been proposed.
Scallop fishery Local vessels Nomadic vessels	Complete loss or restricted access to fishing grounds	O	<b>Moderate (All scallop fisheries)</b>	Minor (Local vessels) Minor (Nomadic vessels)	The assessment in the 2012 Offshore ES was carried out for the scallop fishery as a whole. The assessment in the 2018 EIA has been carried out separately for local smaller scallop vessels and larger nomadic vessels.  Impact significance is considered minor, as local smaller scallop vessels will be able to regain access to Project Alpha and Project Bravo during operation. In the case of larger nomadic vessels, whilst the assessment assumes they will choose not to fish within Project Alpha and Project Bravo, given the extent of fishing grounds available to these vessels, the impact is also considered to be minor.
Squid fishery	Temporary loss or restricted access to fishing grounds	C, D	Minor	Minor	No change
Squid fishery	Complete loss or restricted access to fishing grounds	O	Minor	Minor	No change

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
Lobster and crab fishery	Temporary loss or restricted access to fishing grounds	C, D	Not assessed	Minor	There was no creeling activity within Project Alpha and Project Bravo at the time the 2012 Offshore ES was produced. Therefore, an assessment specific to the lobster and crab fishery was not undertaken in the 2012 EIA.
Lobster and crab fishery	Complete loss or restricted access to fishing grounds	O	Not assessed	Minor	There was no creeling activity within Project Alpha and Project Bravo at the time the 2012 Offshore ES was produced. Therefore, an assessment specific to the lobster and crab fishery was not undertaken in the 2012 EIA.
All fisheries	Safety issues for fishing vessels	C, O, D	Within acceptable limits	Within acceptable limits	No change
All fisheries	Increased steaming times to fishing grounds	C, O, D	Minor	Minor	No change
All fisheries	Displacement of fishing activity into other areas	C, D	As above for temporary loss or restricted access to traditional fishing grounds		
All fisheries	Displacement of fishing activity into other areas	O	As above for complete loss or restricted access to fishing grounds		
All fisheries	Interference with fishing activities (navigational conflict)	C, O, D	Minor	Minor	No change

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
<b>Optimised Seagreen Project Cumulative Impacts</b>					
All fisheries	Mortality or injury  Behaviour	C, D	Minor for herring, negligible all other species  <b>Major</b> (for herring), negligible for all other species.	Negligible for all species  Minor for herring and other Group 3 species and negligible for all other species.	The predictions of significant adverse impacts were arrived at in the 2012 Offshore ES because of predicted spatial overlap between modelled levels of underwater noise assumed to be disturbing and mapped herring spawning and nursery grounds. This EIA Report uses the same information on herring spawning and nursery areas and so differences relate to the underwater noise modelling and guidelines used to inform the assessment.
All fisheries	Potential impacts on commercially exploited fish and shellfish populations	O	Negligible to Minor	Not assessed	All potential impacts on natural fish and shellfish resources were scoped out for assessment in the 2018 EIA report with the exception of the impact of underwater noise during pile driving.
Scallop fishery Squid fishery Lobster and crab fishery	Temporary loss or restricted access to fishing grounds	C, D	<b>Moderate</b> (All fisheries)	Minor (Scallop fishery) Minor (Squid fishery) Minor (Lobster and crab fishery)	A further detailed cumulative assessment has been carried out in the 2018 EIA, including consideration of the distribution of fishing activity by each relevant fishery in respect of the location of projects included in the cumulative assessment.  In the case of the scallop fishery, a separate assessment for local smaller scallop vessels and larger nomadic vessels has been undertaken in the 2018 EIA with mitigation proposed for local smaller scallop vessels to reduce impact significance to minor during the construction phase.  In the case of the lobster and crab fishery, in line with the approach taken for Project Alpha and Project Bravo, the assessment assumes adherence to FLOWW guidance in respect of evidence based mitigation is implemented by other projects included in the cumulative impact assessment where relevant.

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
Nephrops fishery	Temporary loss or restricted access to fishing grounds	C, D	Minor	No assessed	The Nephrops fishery was not assessed in the 2018 in respect of loss of fishing grounds as no activity by this fishery occurs in Project Alpha and Project Bravo and therefore there is no potential pathway for cumulative impacts in respect of the Optimised Seagreen Project.
Scallop fishery Squid fishery	Complete loss or restricted access to fishing grounds	O	<b>Moderate</b> (Scallop and Squid fishery)	Minor (Scallop fishery Local dredgers and Nomadic vessels) Minor (Squid fishery)	A further detailed cumulative assessment has been carried out in the 2018 EIA, including consideration of the distribution of fishing activity by each relevant fishery in respect of the location of projects included in the cumulative assessment.  In the case of the scallop fishery, a separate assessment for local smaller scallop vessels and larger nomadic vessels has been undertaken in the 2018 EIA.
Lobster and crab fishery	Complete loss or restricted access to fishing grounds	O	Not assessed	Minor	There was no creeling activity within Project Alpha and Project Bravo at the time the 2012 Offshore ES was produced. Activity by this fishery was then only occurring in areas relevant to export cables. Therefore, a cumulative assessment specific to the lobster and crab fishery during operation was not undertaken in the 2012 Offshore ES as cables would be buried and fishing would resume over them.
All fisheries	Safety issues for fishing vessels	C, D	Outside of acceptable limits	Within acceptable limits	In the 2012 Offshore ES the cumulative impact of safety issues was considered to be outside of acceptable limits until appropriate post installation surveys were completed. In the 2018 EIA it has been considered that the same obligations noted for assessment of Project Alpha, Project Bravo and Project Alpha and Bravo combined, will apply to other developments to ensure that safety issues are within acceptable limits.
All fisheries	Safety issues for fishing vessels	O	Within acceptable limits	Within acceptable limits	No change

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
All fisheries	Increased steaming times to fishing grounds	C, O, D	Minor	Minor	No change
All fisheries	Displacement of fishing activity into other areas	C, D	As above for temporary loss or restricted access to traditional fishing grounds		
All fisheries	Displacement of fishing activity into other areas	O	As above for complete loss or restricted access to fishing grounds		
All fisheries	Interference with fishing activities (navigation conflict)	C, D	<p><b>Moderate</b> (lobster and crab fishery)</p> <p>Minor (mobile gear fisheries)</p>	Minor (all fisheries)	<p>The assessment carried out in the 2012 Offshore ES considered that until mitigation similar to that then proposed for Project Alpha and Project Bravo (i.e. establishment of protocols to agree transit lanes) was agreed by other projects the significance of the impact would be moderate for the lobster and crab fishery.</p> <p>In the 2018 EIA Report a number of mitigation measures have been incorporated into the project, including the implementation of a Vessel Management Plan for Project Alpha and Project Bravo which would include provisions for appropriate liaison, enabling awareness of construction vessels crews of the locations of static gears and fishermen’s awareness of construction vessel transit routes. The cumulative assessment presented in the 2018 EIA, considers that in line with current standard practice, similar measures to those proposed for Project Alpha and Project Bravo would be applied to the installation of other projects included in the cumulative assessment. As such, in the 2018 EIA Report the significance of the impact on the lobster and crab fishery is considered to be minor.</p>
All fisheries	Interference with fishing activities (navigation conflict)	O	Minor	Minor	No change

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
<b>Transmission Asset</b>					
All fisheries	Potential impacts on commercially exploited fish and shellfish populations	C, O, D	Negligible to Minor	Not assessed	The potential impacts of the Transmission Asset have not been assessed separately in the 2018 EIA. This project was licenced in 2014 and remains unchanged, it is therefore considered a separate project. Potential impacts associated with the Transmission Asset are given consideration as part of the cumulative assessment within the 2018 EIA.
Scallop fishery Squid fishery Nephrops fishery	Temporary loss or restricted access to fishing grounds	C, D	Minor	Not assessed	
Crab and lobster fishery	Temporary loss or restricted access to fishing grounds	C, D	<b>Moderate</b>	Not assessed	
All fisheries	Complete loss or restricted access to fishing grounds	O	Negligible	Not assessed	
All fisheries	Safety issues for fishing vessels	C, O, D	Within acceptable limits	Not assessed	
All fisheries	Increased steaming times to fishing grounds	C, D	Minor	Not assessed	
All fisheries	Increased steaming times to fishing grounds	O	Negligible	Not assessed	
All fisheries	Displacement of fishing activity into other areas	C, D	As above for temporary loss or restricted access to traditional fishing grounds	Not assessed	
All fisheries	Displacement of fishing activity into other areas	O	As above for complete loss or restricted access to fishing grounds	Not assessed	
All fisheries	Interference with fishing activities	C, D	Minor	Not assessed	
All fisheries	Interference with fishing activities	O	Negligible	Not assessed	



**Table 17.5 Shipping and Navigation Summary of Impacts**

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
<b>Project Alpha and Project Bravo in Isolation</b>					
Commercial Vessels	Displacement	C, O, D	Not Significant	Broadly Acceptable (Not Significant)	No change
	Encounters and Collision with Project Construction/ Decommissioning Vessels	C, D			
	Encounters and Collision with Other Vessels	C, O, D			
	Allision Risk		Not assessed		
Commercial Fishing Vessels	Displacement	C, O, D	Not Significant	Broadly Acceptable (Not Significant)	No change
	Encounters and Collision with Project Construction/ Decommissioning Vessels	C, D			
	Encounters and Collision with Other Vessels	C, O, D			
	Allision Risk		Not assessed		

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
Recreational Vessels	Displacement	C, O, D	Not Significant	Broadly Acceptable (Not Significant)	No change
	Encounters and Collision with Project Construction/ Decommissioning Vessels	C, D			
	Encounters and Collision with Other Vessels	C, O, D			
	Allision Risk		Not assessed		
SAR Operations	Diminishment of Emergency Response Resources	O	Not Significant	Broadly Acceptable (Not Significant)	No change
Marine Radar Systems	Radar interference within 1.5nm range of WTGs	O	Not Significant	No Impact Identified	Knowledge and understanding of marine radar systems has improved since 2012. Given lessons learned from other projects, this impact is considered to be negligible.
<b>Project Alpha and Project Bravo Combined</b>					
Commercial Vessels	Displacement	C, O, D	Not assessed	Tolerable with Mitigation (Not Significant)	The method agreed at the time of production of the 2012 Offshore ES did not include assessment of Project Alpha and Project Bravo combined. This methodology has been updated for the 2018 assessment.
	Encounters and Collision with Optimised Seagreen Project Construction/Decomm issioning Vessels	C, D			
	Encounters and Collision with Other Vessels	C, O, D			
	Allision Risk				

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
Commercial Fishing Vessels	Displacement, Encounters and Collision Risk	C, O, D	Not assessed	Broadly Acceptable (Not Significant)	
	Allision Risk				
Recreational Vessels	Displacement, Encounters and Collision Risk	C, O, D	Not assessed	Broadly Acceptable (Not Significant)	
	Allision Risk				
SAR Operations	Diminishment of Emergency Response Resources	O	Not assessed	Broadly Acceptable (Not Significant)	
<b>Optimised Seagreen Project Cumulative Impacts - Construction and Decommissioning</b>					
<p>Given the low data confidence it is not possible to undertake a detailed cumulative assessment of a realistic worst case scenario during the construction and decommissioning for shipping and navigation. However, if simultaneous construction is considered worst case then it is assumed that post consent environmental measures deployed by maritime regulators would ensure that any impacts on commercial vessels or commercial fishing vessels would be effectively mitigated and the 2018 residual impacts would be 'Tolerable with Mitigation' (Not Significant). Construction, operation and decommissioning impacts were not individually assessed in the 2012 Offshore ES therefore the worst case scenario has been assumed (operational phase).</p>					
<b>Optimised Seagreen Project Cumulative Impacts - Operation</b>					
Commercial Vessels	Displacement, Encounters and Collision Risk	O	Not Significant	Tolerable with Mitigation (Not Significant)	No change
	Allision Risk		Not assessed		
Commercial Fishing Vessels	Displacement, Encounters and Collision Risk	O	Not Significant	Broadly Acceptable (Not Significant)	
	Allision Risk		Not assessed		
	Gear Snagging		Not Significant	Assessed within Chapter 11 (Commercial Fisheries)	

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
Recreational Vessels	Potential increase in collision risk with displaced recreational vessels and structures	O	Not Significant	No Impact Identified	Understanding of recreational vessels and their transits has improved since 2012. Given the low levels of recreational activity with the Optimised Seagreen Project no cumulative impacts were identified.
<b>Transmission Asset</b>					
Commercial Vessels Fishing Vessels Recreational Vessels	Impact of export cable installation: Route deviations and potential increase in vessel-to-vessel encounters and collision risk for vessels	C	Not Significant	Not assessed	The potential impacts of the Transmission Asset have not been assessed separately in the 2018 EIA. This project was licenced in 2014 and remains unchanged, it is therefore considered a separate project. Potential impacts associated with the Transmission Asset are given consideration as part of the cumulative assessment within the 2018 EIA.
Commercial Vessels Fishing Vessels Recreational Vessels	Impact of Transmission Asset Project infrastructure installation: Route deviations and potential increase in vessel-to-vessel encounters and collision risk for vessels	C	Not Significant	Not assessed	
Commercial Vessels	Impact of export cable: Risk to vessels required to anchor in an emergency situation.	O	Not Significant	Not assessed	
Fishing Vessels	Impact of export cable on fishing gear snagging on export cable resulting in loss of gear or vessel capsizing.	O	Not Significant	Not assessed	

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
Recreational Vessels	Impact of export cable: Risk to recreational vessels anchoring in close proximity to export cable.	O	Not Significant	Not assessed	
All vessels	Impact of export cable on Vessel Navigation Electromagnetic interference on ship- borne equipment including compasses.	O	Not Significant	Not assessed	
Commercial Vessels	Impact of Transmission Asset Project Infrastructure: Vessel displacement, route deviations and potential increase in vessel-to-vessel and vessel-to-structure collisions.	O	Not Significant	Not assessed	
Fishing Vessels	Impact of Transmission Asset Project Infrastructure: Potential increase in encounters and collision risk for fishing vessels.	O	Not Significant	Not assessed	
Recreational Vessels	Impact of Transmission Asset Project Infrastructure: Potential increase in encounters and collision risk for recreational vessels.	C	Not Significant	Not assessed	

**Table 17.6 SLVIA Summary of Impacts**

It should be noted that, in line with relevant guidance, the impact assessment for this SLVIA reports significance of impact on a sliding scale in line with the relative importance of effect. Major effects are judged to be the most important with Negligible effects of least concern. Within the 2018 EIA Report, impacts identified as Major or Major/Moderate impacts are judged to be Significant whilst impacts identified as Moderate or less are considered to be Not Significant (see Chapter 13 [SLVIA Methodology]). Where residual impacts are provided in brackets (from the 2012 Offshore ES) this is the final conclusion on significance related to the assessment method used at the time.

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
<b>Project Alpha<sup>1</sup></b>					
Effects on Landscape character	Upon landscape character	C, D	Minor (reversible and temporary effect during the day and night-time works)	Not assessed	Scoped out as no prospect of Significant effects arising
Effects on landscape designations	Upon character of designated landscapes	C, D	Negligible	Not assessed	Scoped out as no prospect of Significant effects arising
Effects on Seascape Character	Upon seascape character	C, D	Minor (reversible and temporary effect during the day and night-time works)	Minor (reversible and temporary effect during the day and night-time works)	No change
Effects on Landscape character	Upon landscape character	O	Minor	Not assessed	Scoped out as no prospect of Significant effects arising
Effects on landscape designations	Upon character of designated landscapes	O	Negligible	Not assessed	Scoped out as no prospect of Significant effects arising
NSU 1: Berwick-Upon-Tweed	Upon character of the national seascape unit	O	Not Assessed	Not assessed	Scoped out as no prospect of Significant effects arising



<sup>1</sup> Viewpoints 9 – 14 are different between the two assessments. The viewpoints listed identify those used in the 2018 SLVIA. The Isle of May viewpoint is VP14 in the 2012 SLVIA but VP13 in the 2018 SLVIA

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
NSU 2: Firth of Forth	Upon character of the national seascape unit	O	Minor	Not assessed	Scoped out as no prospect of Significant effects arising
NSU 3: East Fife/Firth of Tay	Upon character of the national seascape unit	O	Minor	Not assessed	Scoped out as no prospect of Significant effects arising
NSU 4: North East Coast	Upon character of the national seascape unit	O	Minor	Not assessed	Scoped out as no prospect of Significant effects arising
SA2: Greg Ness top Cove Bay	Upon seascape character type	O	Minor	Not assessed	Scoped out as no prospect of Significant effects arising
SA3: Cove Bay to Milton Ness	Upon seascape character type	O	<b>Moderate</b>	Moderate – Minor	Combination of updated methodology, professional judgement, updated baseline and different scheme
SA4: Montrose Bay	Upon seascape character type	O	<b>Moderate</b>	Moderate	No change
SA5: Long Craig	Upon seascape character type	O	Minor/Moderate (Minor)	Moderate – Minor	No change
SA6: Lunan Bay	Upon seascape character type	O	Moderate/Minor (Minor)	Moderate	Combination of updated methodology, professional judgement, updated baseline and different scheme
SA7: Lang Craig to The Deil'sHeid	Upon seascape character type	O	Moderate/Minor (Minor)	Moderate – Minor	No change
SA8: Arbroath to Monifieth	Upon seascape character type	O	Minor	Not assessed	Scoped out as no prospect of Significant effects arising
SA12: St Andrews to Fife Ness	Upon seascape character type	O	Minor	Not assessed	Scoped out as no prospect of Significant effects arising
SA13: East Neuk of Fife	Upon seascape character type	O	Minor	Not assessed	Scoped out as no prospect of Significant effects arising

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
Effects on visual amenity	Upon visual amenity of visual receptors	C, D	Minor (reversible and temporary effect during the day and night-time works)	Minor (reversible and temporary effect during the day and night-time works)	No change
VP1 – Garron Point (Stonehaven Golf Club)	Upon visual amenity of visual receptor	O	Minor/Moderate (Minor)	Moderate - Minor	Combination of updated methodology, professional judgement, updated baseline and different scheme
VP2 – Beach Road, Kirkton, St Cyrus	Upon visual amenity of visual receptor	O	<b>Major/Moderate (Moderate)</b>	<b>Major-Moderate</b>	No Change
VP3 – White Caterthun Hill Fort	Upon visual amenity of visual receptor	O	Moderate/Minor (Minor)	Moderate - Minor	Combination of updated methodology, professional judgement, updated baseline and different scheme
VP4 – Montrose	Upon visual amenity of visual receptor	O	Moderate/Minor (Minor)	Moderate	Combination of updated methodology, professional judgement, updated baseline and different scheme
VP5 – Braehead of Lunan	Upon visual amenity of visual receptor	O	<b>Major/Moderate (Moderate)</b>	<b>Major – Moderate</b>	No change
VP6 – Arbroath Signal Tower	Upon visual amenity of visual receptor	O	Moderate/Minor (Minor)	Moderate – Minor	No change
VP7 – Carnoustie	Upon visual amenity of visual receptor	O	Minor/Moderate (Negligible)	Minor	Combination of updated methodology, professional judgement, updated baseline and different scheme
VP8 – Fife Ness, Lochaber Rock	Upon visual amenity of visual receptor	O	Minor/Moderate (Negligible)	Minor – Negligible	Combination of updated methodology, professional judgement, updated baseline and different scheme
VP9 - North Berwick Law	Upon visual amenity of visual receptor	O	Not assessed	Minor – Negligible	Viewpoint not assessed in the 2012 Offshore ES for Project Alpha



Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
VP10 – Dunbar Cliffs	Upon visual amenity of visual receptor	O	Not assessed	Negligible	Viewpoint not assessed in the 2012 Offshore ES for Project Alpha
VP11 – Pinderachy	Upon visual amenity of visual receptor	O	Not assessed	Moderate - Minor	Viewpoint not assessed in the 2012 Offshore ES for Project Alpha
VP12 – The Geot/Ben Tirran (a corbett)	Upon visual amenity of visual receptor	O	Not assessed	Moderate- Minor	Viewpoint not assessed in the 2012 Offshore ES for Project Alpha
VP13 – Isle of May	Upon visual amenity of visual receptor	O	Not assessed	Minor-Negligible	Viewpoint not assessed in the 2012 Offshore ES for Project Alpha
VP14 – Bell Rock Lighthouse	Upon visual amenity of visual receptor	O	Not assessed	Moderate – Minor	Viewpoint not assessed in the 2012 Offshore ES for Project Alpha
Residential receptors (and settlements)	Upon visual amenity of receptor group	O	<b>Moderate</b> - Negligible	Moderate - Negligible	No change
Recreational walking and cycling receptors	Upon visual amenity of receptor group	O	<b>Moderate</b> - Negligible	Moderate - Negligible	No change
Roads and railways	Upon visual amenity of receptor group Upon visual amenity of receptor group	O	Minor	Minor - Negligible	Combination of updated methodology, professional judgement, updated baseline and different scheme
Vantage points and tourist attractions	Upon visual amenity of receptor group	O	<b>Moderate</b> - Minor	Moderate - Minor	No change
Other land-based receptors	Upon visual amenity of receptor group	O	Negligible	Negligible	No change
Marine receptors	Upon visual amenity of receptor group	O	<b>Moderate</b> – Minor/Moderate	<b>Moderate</b> – Moderate/Minor	Combination of updated methodology, professional judgement, updated baseline and different scheme
Aircraft passengers	Upon visual amenity of receptor group	O	Negligible	Not assessed	No impact pathway identified
Night-time visual impacts	Upon visual amenity of receptor group	O	Minor/Moderate	Minor	Combination of updated methodology, professional judgement, updated baseline and different scheme

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
<b>Project Bravo<sup>2</sup></b>					
Effects on Landscape character	Upon landscape character	C, D	Minor (reversible and temporary effect during the day and night-time works)	Not assessed	Scoped out as no prospect of Significant effects arising
Effects on landscape designations	Upon character of designated landscapes	C, D	Negligible	Not assessed	Scoped out as no prospect of Significant effects arising
Effects on Seascape Character	Upon seascape character	C, D	Minor (reversible and temporary effect during the day and night-time works)	Minor (reversible and temporary effect during the day and night-time works)	No change
Effects on Landscape character	Upon landscape character	O	Minor	Not assessed	Scoped out as no prospect of Significant effects arising
Effects on landscape designations	Upon character of designated landscapes	O	Negligible	Not assessed	Scoped out as no prospect of Significant effects arising
NSU 1: Berwick-Upon-Tweed	Upon character of the national seascape unit	O	Not assessed	Not assessed	Scoped out as no prospect of Significant effects arising
NSU 2: Firth of Forth	Upon character of the national seascape unit	O	Not assessed	Not assessed	Scoped out as no prospect of Significant effects arising
NSU 3: East Fife/Firth of Tay	Upon character of the national seascape unit	O	<b>Minor</b>	Not assessed	Scoped out as no prospect of Significant effects arising
NSU 4: North East Coast	Upon character of the national seascape unit	O	<b>Minor</b>	Not assessed	Scoped out as no prospect of Significant effects arising



<sup>2</sup> Viewpoints 9 – 14 are different between the two assessments. The viewpoints listed identify those used in the 2018 SLVIA. The Isle of May viewpoint is VP14 in the 2012 SLVIA but VP13 in the 2018 SLVIA

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
SA2: Greg Ness to Cove Bay	Upon seascape character type	O	Not Assessed	Not assessed	Scoped out as no prospect of Significant effects arising
SA3: Cove Bay to Milton Ness	Upon seascape character type	O	Minor	Minor	No change
SA4: Montrose Bay	Upon seascape character type	O	Moderate/Minor (Minor)	Moderate	Combination of updated methodology, professional judgement, updated baseline and different scheme
SA5: Long Craig	Upon seascape character type	O	Minor/Moderate (Minor)	Minor	Combination of updated methodology, professional judgement, updated baseline and different scheme
SA6: Lunan Bay	Upon seascape character type	O	Moderate/Minor (Minor)	Moderate	Combination of updated methodology, professional judgement, updated baseline and different scheme
SA7: Lang Craig to The Deil's Heid	Upon seascape character type	O	Moderate/Minor (Minor)	Minor	Combination of updated methodology, professional judgement, updated baseline and different scheme
SA8: Arbroath to Monifieth	Upon seascape character type	O	Minor	Not assessed	Scoped out as no prospect of Significant effects arising
SA12: St Andrews to Fife Ness	Upon seascape character type	O	Not assessed	Not assessed	Scoped out as no prospect of Significant effects arising
SA13: East Neuk of Fife	Upon seascape character type	O	Not assessed	Not assessed	Scoped out as no prospect of Significant effects arising
Effects on visual amenity	Upon visual amenity of visual receptors	C, D	Minor (reversible and temporary effect during the day and night-time works)	Minor (reversible and temporary effect during the day and night-time works)	No change
VP1 – Garron Point (Stonehaven Golf Club)	Upon visual amenity of visual receptor	O	Minor	Minor	No change

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
VP2 – Beach Road, Kirkton, St Cyrus	Upon visual amenity of visual receptor	O	Moderate/Minor (Minor)	Moderate	Combination of updated methodology, professional judgement, updated baseline and different scheme
VP3 – White Caterthun Hill Fort	Upon visual amenity of visual receptor	O	Not assessed	Minor	Viewpoint not assessed in the 2012 Offshore ES for Project Bravo
VP4 – Montrose	Upon visual amenity of visual receptor	O	Minor/Moderate (Negligible)	Moderate- Minor	No change
VP5 – Braehead of Lunan	Upon visual amenity of visual receptor	O	Moderate/Minor (Minor)	Moderate	Combination of updated methodology, professional judgement, updated baseline and different scheme
VP6 – Arbroath Signal Tower	Upon visual amenity of visual receptor	O	Moderate/Minor (Minor)	Moderate- Minor	No change
VP7 – Carnoustie	Upon visual amenity of visual receptor	O	Minor/Moderate (Negligible)	Minor	Combination of updated methodology, professional judgement, updated baseline and different scheme
VP8 – Fife Ness, Lochaber Rock	Upon visual amenity of visual receptor	O	Minor/Moderate (Negligible)	Minor-Negligible	Combination of updated methodology, professional judgement, updated baseline and different scheme
VP9 – North Berwick Law	Upon visual amenity of visual receptor	O	Not assessed	Minor-Negligible	Viewpoint not assessed in the 2012 Offshore ES for Project Bravo
VP10 – Dunbar Cliffs	Upon visual amenity of visual receptor	O	Not assessed	Negligible	Viewpoint not assessed in the 2012 Offshore ES for Project Bravo
VP11 – Pinderachy	Upon visual amenity of visual receptor	O	Not assessed	Minor	Viewpoint not assessed in the 2012 Offshore ES for Project Bravo
VP12 – The Geot/Ben Tirran (a corbett)	Upon visual amenity of visual receptor	O	Not assessed	Moderate – Minor	Viewpoint not assessed in the 2012 Offshore ES for Project Bravo

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
VP13 – Isle of May	Upon visual amenity of visual receptor	O	Not assessed	Minor – Negligible	Viewpoint not assessed in the 2012 Offshore ES for Project Bravo
VP14 – Bell Rock Lighthouse	Upon visual amenity of visual receptor	O	Not assessed	Moderate – Minor	Viewpoint not assessed in the 2012 Offshore ES for Project Bravo
Residential receptors (and settlements)	Upon visual amenity of receptor group	O	Minor – Negligible	Minor – Negligible	No change
Recreational walking and cycling receptors	Upon visual amenity of receptor group	O	Minor – Negligible	Minor – Negligible	No change
Roads and railways	Upon visual amenity of receptor group Upon visual amenity of receptor group	O	Minor	Minor – Negligible	No change
Vantage points and tourist attractions	Upon visual amenity of receptor group	O	Minor	Minor	No change
Other land-based receptors	Upon visual amenity of receptor group	O	Negligible	Negligible	No change
Marine receptors	Upon visual amenity of receptor group	O	<b>Moderate – Minor/Moderate</b>	<b>Moderate – Moderate/Minor</b>	No change
Aircraft passengers	Upon visual amenity of receptor group	O	Negligible	Not assessed	No impact pathway identified
Night-time visual impacts	Upon visual amenity of receptor group	O	Minor/Moderate	Minor	Combination of updated methodology, professional judgement, updated baseline and different scheme

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
<b>Project Alpha and Project Bravo Combined,<sup>34</sup></b>					
Effects on Landscape character	Upon landscape character	C, D	Not assessed	Not assessed	Scoped out as no prospect of Significant effects arising
Effects on landscape designations	Upon character of designated landscapes	C, D	Not assessed	Not assessed	Scoped out as no prospect of Significant effects arising
Effects on Seascape Character	Upon seascape character	C, D	Not assessed	Minor (reversible and temporary effect during the day and night-time works)	Not assessed for the combined projects within the 2012 Offshore ES
Effects on Landscape character	Upon landscape character	O	Minor	Not assessed	Scoped out as no prospect of Significant effects arising
Effects on landscape designations	Upon character of designated landscapes	O	Negligible	Not assessed	Scoped out as no prospect of Significant effects arising
NSU 1: Berwick-Upon-Tweed	Upon character of the national seascape unit	O	Not assessed	Not assessed	Scoped out as no prospect of Significant effects arising
NSU 2: Firth of Forth	Upon character of the national seascape unit	O	Minor	Not assessed	Scoped out as no prospect of Significant effects arising
NSU 3: East Fife/Firth of Tay	Upon character of the national seascape unit	O	Minor	Not assessed	Scoped out as no prospect of Significant effects arising
NSU 4: North East Coast	Upon character of the national seascape unit	O	<b>Moderate</b>	Not assessed	Scoped out as no prospect of Significant effects arising



<sup>3</sup> Viewpoints 9 - 14 are different between the two assessments. The viewpoints shown identify those used in the 2018 SLVIA. The Isle of May viewpoint is VP14 in the 2012 SLVIA but VP13 in the 2018 SLVIA

<sup>4</sup> For the 2018 SLVIA the 2 OSPs have been included within the respective Project Alpha and Project Bravo sites. The interconnecting cables and cables to landfall are scoped out of the 2018 SLVIA

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
SA2: Greg Ness top Cove Bay	Upon seascape character type	O	Minor	Not assessed	Scoped out as no prospect of Significant effects arising
SA3: Cove Bay to Milton Ness	Upon seascape character type	O	<b>Moderate</b>	Moderate-Minor	Combination of updated methodology, professional judgement, updated baseline and different scheme
SA4: Montrose Bay	Upon seascape character type	O	<b>Moderate</b>	Moderate	Combination of updated methodology, professional judgement, updated baseline and different scheme
SA5: Long Craig	Upon seascape character type	O	Minor	Moderate - Minor	Combination of updated methodology, professional judgement, updated baseline and different scheme
SA6: Lunan Bay	Upon seascape character type	O	Minor	Moderate	Combination of updated methodology, professional judgement, updated baseline and different scheme
SA7: Lang Craig to The Deil's Heid	Upon seascape character type	O	Minor	Moderate - Minor	Combination of updated methodology, professional judgement, updated baseline and different scheme
SA8: Arbroath to Monifieth	Upon seascape character type	O	Minor	Not assessed	Scoped out as no prospect of Significant effects arising
SA12: St Andrews to Fife Ness	Upon seascape character type	O	Not assessed	Not assessed	Scoped out as no prospect of Significant effects arising
SA13: East Neuk of Fife	Upon seascape character type	O	Not assessed	Not assessed	Scoped out as no prospect of Significant effects arising
Effects on visual amenity	Upon visual amenity of visual receptors	C, D	Not assessed	Minor (reversible and temporary effect during the day and night-time works)	Not assessed for the combined projects within the 2012 Offshore ES

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
VP1 – Garron Point (Stonehaven Golf Club)	Upon visual amenity of visual receptor	O	Minor	Moderate – Minor	Combination of updated methodology, professional judgement, updated baseline and different scheme
VP2 – Beach Road, Kirkton, St Cyrus	Upon visual amenity of visual receptor	O	<b>Moderate</b>	<b>Major – Moderate</b>	Combination of updated methodology, professional judgement, updated baseline and different scheme
VP3 – White Caterthun Hill Fort	Upon visual amenity of visual receptor	O	Minor	Moderate – Minor	Combination of updated methodology, professional judgement, updated baseline and different scheme
VP4 – Montrose	Upon visual amenity of visual receptor	O	Minor	Moderate	Combination of updated methodology, professional judgement, updated baseline and different scheme
VP5 – Braehead of Lunan	Upon visual amenity of visual receptor	O	<b>Moderate</b>	<b>Major – Moderate</b>	Combination of updated methodology, professional judgement, updated baseline and different scheme
VP6 – Arbroath Signal Tower	Upon visual amenity of visual receptor	O	Minor	Moderate – Minor	Combination of updated methodology, professional judgement, updated baseline and different scheme
VP7 – Carnoustie	Upon visual amenity of visual receptor	O	No Effect or Negligible	Minor	Combination of updated methodology, professional judgement, updated baseline and different scheme
VP8 – Fife Ness, Lochaber Rock	Upon visual amenity of visual receptor	O	No Effect or Negligible	Minor – Negligible	Combination of updated methodology, professional judgement, updated baseline and different scheme
VP9 – North Berwick Law	Upon visual amenity of visual receptor	O	Not assessed	Minor – Negligible	Viewpoint not assessed in the 2012 Offshore ES
VP10 – Dunbar Cliffs	Upon visual amenity of visual receptor	O	Not assessed	Negligible	Viewpoint not assessed in the 2012 Offshore ES
VP11 – Pinderachy	Upon visual amenity of visual receptor	O	Not assessed	Moderate – Minor	Viewpoint not assessed in the 2012 Offshore ES for Project Bravo



Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
VP12 – The Geot/Ben Tirran (a corbett)	Upon visual amenity of visual receptor	O	Not assessed	Moderate – Minor	Viewpoint not assessed in the 2012 Offshore ES for Project Bravo
VP13 – Isle of May	Upon visual amenity of visual receptor	O	Minor	Minor – Negligible	Combination of updated methodology, professional judgement, updated baseline and different scheme
VP14 – Bell Rock Lighthouse	Upon visual amenity of visual receptor	O	Not Assessed	Moderate – Minor	Viewpoint not assessed in the 2012 Offshore ES for Project Bravo
Residential receptors (and settlements)	Upon visual amenity of receptor group	O	<b>Moderate</b> - Negligible	Moderate – Negligible	Combination of updated methodology, professional judgement, updated baseline and different scheme
Recreational walking and cycling receptors	Upon visual amenity of receptor group	O	<b>Moderate</b> - Negligible	Moderate – Negligible	Combination of updated methodology, professional judgement, updated baseline and different scheme
Roads and railways	Upon visual amenity of receptor group Upon visual amenity of receptor group	O	Minor	Minor – Negligible	No change
Vantage points and tourist attractions	Upon visual amenity of receptor group	O	<b>Moderate</b> - Minor	Moderate – Minor	Combination of updated methodology, professional judgement, updated baseline and different scheme
Other land-based receptors	Upon visual amenity of receptor group	O	Negligible	Negligible	No change
Marine receptors	Upon visual amenity of receptor group	O	<b>Moderate</b> – Minor/Moderate	<b>Moderate</b> – Moderate/Minor	No change
Aircraft passengers	Upon visual amenity of receptor group	O	Negligible	Not Assessed	No impact pathway identified
Night-time visual impacts	Upon visual amenity of receptor group	O	Minor/Moderate	Minor	Combination of updated methodology, professional judgement, updated baseline and different scheme

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
<b>Optimised Seagreen Project Cumulative Impacts<sup>5</sup></b>					
Cumulative effects on Landscape character	Upon landscape character	C, D	Negligible	Not assessed	Scoped out as no prospect of Significant effects arising
Cumulative effects on landscape designations	Upon character of designated landscapes	C, D	Negligible	Not assessed	Scoped out as no prospect of Significant effects arising
Cumulative effects on Seascape Character	Upon seascape character	C, D	Not assessed	Minor (reversible and temporary effect during the day and night-time works)	Not assessed cumulatively within the 2012 Offshore ES
Cumulative effects on Landscape character	Upon landscape character	O	Negligible	Not assessed	Scoped out as no prospect of Significant effects arising
Cumulative effects on landscape designations	Upon character of designated landscapes	O	Negligible	Not assessed	Scoped out as no prospect of Significant effects arising
NSU 1: Berwick-Upon-Tweed	Upon character of the national seascape unit	O	Not assessed	Not assessed	Scoped out as no prospect of Significant effects arising
NSU 2: Firth of Forth	Upon character of the national seascape unit	O	Minor	Not assessed	Scoped out as no prospect of Significant effects arising
NSU 3: East Fife/Firth of Tay	Upon character of the national seascape unit	O	Minor	Not assessed	Scoped out as no prospect of Significant effects arising
NSU 4: North East Coast	Upon character of the national seascape unit	O	Minor	Not assessed	Scoped out as no prospect of Significant effects arising
SA2: Greg Ness top Cove Bay	Upon seascape character type	O	Minor (No effect or Negligible)	Not assessed	Scoped out as no prospect of Significant effects arising



<sup>5</sup> Viewpoints 9 – 14 are different between the two assessments. The viewpoints listed identify those used in the 2018 SLVIA. The Isle of May viewpoint is VP14 in the 2012 SLVIA but VP13 in the 2018 SLVIA

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
SA3: Cove Bay to Milton Ness	Upon seascape character type	O	<b>Moderate</b>	Moderate – Minor	Combination of updated methodology, professional judgement, updated baseline and different scheme
SA4: Montrose Bay	Upon seascape character type	O	<b>Major/Moderate (Moderate)</b>	Moderate	Combination of updated methodology, professional judgement, updated baseline and different scheme
SA5: Long Craig	Upon seascape character type	O	<b>Moderate</b>	Minor	Combination of updated methodology, professional judgement, updated baseline and different scheme
SA6: Lunan Bay	Upon seascape character type	O	<b>Moderate</b>	Moderate – Minor	Combination of updated methodology, professional judgement, updated baseline and different scheme
SA7: Lang Craig to The Deil’sHeid	Upon seascape character type	O	Moderate/Minor (Minor)	Moderate – Minor	Combination of updated methodology, professional judgement, updated baseline and different scheme
SA8: Arbroath to Monifieth	Upon seascape character type	O	Minor/Moderate (Minor)	Combination of updated methodology, professional judgement, updated baseline and different scheme	Combination of updated methodology, professional judgement, updated baseline and different scheme
SA12: St Andrews to Fife Ness	Upon seascape character type	O	Minor/Moderate (Negligible)	Combination of updated methodology, professional judgement, updated baseline and different scheme	Combination of updated methodology, professional judgement, updated baseline and different scheme

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
SA13: East Neuk of Fife	Upon seascape character type	O	Minor/Moderate (Negligible)	Combination of updated methodology, professional judgement, updated baseline and different scheme	Combination of updated methodology, professional judgement, updated baseline and different scheme
Effects on visual amenity	Upon visual amenity of visual receptors	C, D	Not assessed	Minor (reversible and temporary effect during the day and night-time works)	Not assessed within the 2012 Offshore ES
VP1 – Garron Point (Stonehaven Golf Club)	Upon visual amenity of visual receptor	O	Minor/Moderate (Minor)	Minor	No change
VP2 – Beach Road, Kirkton, St Cyrus	Upon visual amenity of visual receptor	O	<b>Major/Moderate (Moderate)</b>	Moderate	No change
VP3 – White Caterthun Hill Fort	Upon visual amenity of visual receptor	O	Moderate/Minor (Minor)	Minor	No change
VP4 – Montrose	Upon visual amenity of visual receptor	O	Moderate/Minor (Minor)	Moderate – Minor	Combination of updated methodology, professional judgement, updated baseline and different scheme
VP5 – Braehead of Lunan	Upon visual amenity of visual receptor	O	<b>Major/Moderate (Moderate)</b>	Moderate	No change
VP6 – Arbroath Signal Tower	Upon visual amenity of visual receptor	O	Moderate/Minor (Minor)	Moderate – Minor	Combination of updated methodology, professional judgement, updated baseline and different scheme
VP7 – Carnoustie	Upon visual amenity of visual receptor	O	Minor/Moderate (Negligible)	Minor	Combination of updated methodology, professional judgement, updated baseline and different scheme
VP8 – Fife Ness, Lochaber Rock	Upon visual amenity of visual receptor	O	Minor/Moderate (Negligible)	Minor – Negligible	Combination of updated methodology, professional judgement, updated baseline and different scheme

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
VP9 – North Berwick Law	Upon visual amenity of visual receptor	O	Not assessed	Minor – Negligible	Different viewpoint assessed in the 2012 Offshore ES
VP10 - Dunbar Cliffs	Upon visual amenity of visual receptor	O	Not assessed	Negligible	Different viewpoint assessed in the 2012 Offshore ES
VP11 - Pinderachy	Upon visual amenity of visual receptor	O	Not assessed	Moderate – Minor	Different viewpoint assessed in the 2012 Offshore ES
VP12 - The Geot/Ben Tirran (a corbett)	Upon visual amenity of visual receptor	O	Not assessed	Moderate – Minor	Different viewpoint assessed in the 2012 Offshore ES
VP13 - Isle of May	Upon visual amenity of visual receptor	O	Minor/Moderate (Negligible) (Note this is VP14 in the 2012 SLVIA)	Minor – Negligible	Combination of updated methodology, professional judgement, updated baseline and different scheme
VP14 - Bell Rock Lighthouse	Upon visual amenity of visual receptor	O	Not Assessed	Moderate – Minor	Different viewpoint assessed in the 2012 Offshore ES
Residential receptors (and settlements)	Upon visual amenity of receptor group	O	<b>Moderate</b> – Negligible	Moderate – Negligible	No change
Recreational walking and cycling receptors	Upon visual amenity of receptor group	O	Minor – Negligible	Moderate – Negligible	Combination of updated methodology, professional judgement, updated baseline and different scheme
Roads and railways	Upon visual amenity of receptor group Upon visual amenity of receptor group	O	Minor	Minor – Negligible	Combination of updated methodology, professional judgement, updated baseline and different scheme
Vantage points and tourist attractions	Upon visual amenity of receptor group	O	<b>Moderate</b> – Negligible	Moderate – Minor	Combination of updated methodology, professional judgement, updated baseline and different scheme
Other land-based receptors	Upon visual amenity of receptor group	O	Negligible	Negligible	No change

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
Marine receptors	Upon visual amenity of receptor group	O	Moderate – Minor	Moderate – Moderate/Minor	Combination of updated methodology, professional judgement, updated baseline and different scheme
Aircraft passengers	Upon visual amenity of receptor group	O	Negligible	Not assessed	No impact pathway identified
Night-time visual impacts	Upon visual amenity of receptor group	O	Minor	Minor	No change
<b>Transmission Asset</b>					
Effects on seascape, landscape and visual amenity	Impact on seascape, landscape and visual amenity	C	Moderate/Minor	Not assessed	The potential impacts of the Transmission Asset have not been assessed separately in the 2018 EIA. The Transmission Asset project was licenced in 2014 and remains unchanged. The OSPs have been included within the respective assessments for Projects Alpha and Bravo and the combined optimised Seagreen Project
Effects on seascape, landscape and visual amenity	Impact on seascape, landscape and visual amenity	O, D	Negligible	Not assessed	

**Table 17.7 Military and Civil Aviation Summary of Impacts**

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
<b>Project Alpha and Project Bravo in Isolation</b>					
Low flying aircraft	Presence of cranes and stationary turbines	C, D	Not Significant	Not Significant	No change
Civil radar (airport)	Radar Impacts	O	Not Significant	Not Significant	No change
Military radar (air traffic control)	Radar Impacts	O	Not Significant	Not Significant	No change
En-Route radar	Radar Impacts	O	Not Significant	Not Significant	No change
MOD air defence radar	Radar Impacts	O	Not Significant	Not Significant	No change
Low flying aircraft	Presence of wind turbines	O	Not Significant	Not Significant	No change
Helicopter Main Routes (HMR)	Potential obstruction	O	Not Significant	Scoped out	Not in proximity to any HMR or offshore platforms
<b>Project Alpha and Project Bravo Combined</b>					
Low flying aircraft	Presence of cranes and stationary turbines	C, D	Not assessed	Not Significant	n/a
Civil radar (airport) Military	Radar impacts	O	Not assessed	Not Significant	n/a
Radar (air traffic control)	Radar impacts	O	Not assessed	Not Significant	n/a
En-Route radar	Radar impacts	O	Not assessed	Not Significant	n/a
MOD air defence radar	Radar impacts	O	Not assessed	Not Significant	n/a
Low flying aircraft	Presence of wind turbines	O	Not assessed	Not Significant	n/a
HMR	Potential obstruction	O	Not assessed	Not Significant	n/a

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
<b>Optimised Seagreen Project Cumulative Impacts</b>					
Cumulative (all radar) (Alpha and Bravo)	Radar Impact	O	Cumulative impacts were still to be established with the MOD and RAF but would have to be mitigated.	Not Significant with the application of suitable mitigation	No change
<b>Transmission Asset</b>					
Radars and Aviation	Radar and aviation impacts	C, O, D	The Transmission Asset Project will not generate any radar or aviation impacts	Not assessed	The potential impacts of the Transmission Asset have not been assessed separately in the 2018 EIA. This project was licenced in 2014 and remains unchanged, it is therefore considered a separate project. Potential impacts associated with the Transmission Asset are given consideration as part of the cumulative assessment within the 2018 EIA.



**Table 17.8 Socio Economics Summary of Impacts**

It should be noted that the 2012 Offshore ES used the heading ‘Scotland: Capital Expenditure (CAPEX)’ to describe the impacts on GVA in Scotland during the CAPEX stage of the development. This, and similar descriptions have been updated in Table 17.8 in order to more accurately reflect the descriptions given in this assessment. Similarly, the 2012 Offshore ES used the heading ‘Direct Employment’ to describe the impacts on employment during the operational phase of the Optimised Seagreen Project. This has also been updated in the table.

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
<b>Project Alpha in Isolation</b>					
Scotland: Capital Expenditures (CAPEX) GVA	Beneficial, short term, direct	C	<b>Minor - Moderate Beneficial</b>	<b>Moderate Beneficial</b>	Use of updated baseline information and developments in assessment methods
Rest of Great Britain: CAPEX GVA	Beneficial, short term, direct	C	Minor Beneficial	Minor Beneficial	Use of updated baseline information and developments in assessment methods
Scotland: Operational Expenditure (OPEX) GVA	Beneficial, long term, direct	O	<b>Minor - Moderate Beneficial</b>	Minor Beneficial	Use of updated baseline information and developments in assessment methods
Rest of Great Britain: OPEX GVA	Beneficial, long term, direct	O	Negligible	Minor Beneficial	Use of updated baseline information and developments in assessment methods
Scotland: CAPEX Employment	Beneficial, short term, direct	C	<b>Moderate - Moderate / Major Beneficial</b>	<b>Moderate Beneficial</b>	Use of updated baseline information and developments in assessment methods
Rest of Great Britain: CAPEX Employment	Beneficial, short term, direct	C	Minor Beneficial	Minor Beneficial	Use of updated baseline information and developments in assessment methods
Operational employment	Beneficial, long term, direct	O	<b>Moderate Beneficial</b>	Minor Beneficial	Use of updated baseline information and developments in assessment methods

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
<b>Project Bravo in Isolation</b>					
Scotland: Capital Expenditures (CAPEX) GVA	Beneficial, short term, direct	C	<b>Moderate - Major Beneficial</b>	<b>Moderate Beneficial</b>	Use of updated baseline information and developments in assessment methods
Rest of Great Britain: CAPEX GVA	Beneficial, short term, direct	C	Minor Beneficial	Minor Beneficial	Use of updated baseline information and developments in assessment methods
Scotland: Operational Expenditure (OPEX) GVA	Beneficial, long term, direct	O	<b>Minor -Moderate Beneficial</b>	Minor Beneficial	Use of updated baseline information and developments in assessment methods
Rest of Great Britain: OPEX GVA	Beneficial, long term, direct	O	Negligible	Minor Beneficial	Use of updated baseline information and developments in assessment methods
Scotland: CAPEX Employment	Beneficial, short term, direct	C	<b>Moderate - Moderate / Major Beneficial</b>	<b>Moderate Beneficial</b>	Use of updated baseline information and developments in assessment methods
Rest of Great Britain: CAPEX Employment	Beneficial, short term, direct	C	No change - Minor Beneficial	Minor Beneficial	Use of updated baseline information and developments in assessment methods
Operational employment	Beneficial, long term, direct	O	<b>Moderate Beneficial</b>	Minor Beneficial	Use of updated baseline information and developments in assessment methods

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
<b>Project Alpha and Project Bravo Combined</b>					
Scotland: Capital Expenditures (CAPEX) GVA	Beneficial, short term, direct	C	<b>Minor - Moderate Beneficial</b>	<b>Moderate Beneficial</b>	Use of updated baseline information and developments in assessment methods
Rest of Great Britain: CAPEX GVA	Beneficial, short term, direct	C	Minor Beneficial	Minor Beneficial	Use of updated baseline information and developments in assessment methods
Scotland: Operational Expenditure (OPEX) GVA	Beneficial, long term, direct	O	<b>Moderate Beneficial</b>	Minor Beneficial	Use of updated baseline information and developments in assessment methods
Rest of Great Britain: OPEX GVA	Beneficial, long term, direct	O	Negligible	Minor Beneficial	Use of updated baseline information and developments in assessment methods
Scotland: CAPEX Employment	Beneficial, short term, direct	C	<b>Moderate/Major - Major Beneficial</b>	<b>Moderate Beneficial</b>	Use of updated baseline information and developments in assessment methods
Rest of Great Britain: CAPEX Employment	Beneficial, short term, direct	C	Minor Beneficial	Minor Beneficial	Use of updated baseline information and developments in assessment methods
Operational employment	Beneficial, long term, direct	O	<b>Moderate Beneficial</b>	Minor Beneficial	Use of updated baseline information and developments in assessment methods
Tourism and Recreation	Adverse, short term, direct, temporary	C	Negligible	Not assessed	Scoped out of 2018 assessment
Tourism and Recreation	Adverse, long term, direct, permanent	O	Negligible - Minor Adverse	Not assessed	Scoped out of 2018 assessment

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
<b>Optimised Seagreen Project Cumulative Impacts</b>					
CAPEX Supply Chain opportunities	Beneficial, short term, direct	C	Not assessed	Minor Beneficial	Not assessed in 2012
OPEX Supply Chain opportunities	Beneficial, long term, direct	C	Not assessed	Minor Beneficial	Not assessed in 2012
<b>Transmission Asset</b>					
For the purposes of the socio-economic assessment in the 2012 Offshore ES, industry guidance was not considered to provide a mechanism for assessing the wind farm elements and transmission project elements separately and where the term 'Project Alpha and Project Bravo' are used above, this refers to the entire infrastructure associated with those projects including the Transmission Asset.				Not assessed	The potential impacts of the Transmission Asset have not been assessed separately in the 2018 EIA. The Transmission Asset project was licenced in 2014 and remains unchanged. The OSPs have been included within the respective assessments for Projects Alpha and Bravo and the combined optimised Seagreen Project

Table 17.9 Physical Environment Summary of Impacts

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
<b>Project Alpha and Project Bravo in Isolation</b>					
Hydrodynamic regime	Impact on hydrodynamic regime	C	Negligible	Not assessed	Scoped out
Sediments and sedimentary structures	Installation plant	C	Negligible	Not assessed	Scoped out
	Seabed preparation	C	Minor in areas of mobile bedforms Negligible (for other GBS) Minor (for jackets with piles or suction piles)	Not assessed	Scoped out
Suspended sediment concentration and transport	Installation of Substructures/ Foundations	C	Negligible	Not assessed	Scoped out
	Installation of Array cables	C	Negligible (for ploughing or cutting)	Not assessed	Scoped out
Hydrodynamic regime	Impact on waves Impact on tides	O	Waves: n/a Tides: Minor (for GBS) Negligible (for jackets with piles or suction piles)	Not assessed	Scoped out
Sediments and sediment structures	Installation of Substructures/ Foundations	O	Minor/Negligible (GBS) Negligible (jackets)	Not assessed	Scoped out
	Installation of Array cables	O	No change if all cable is buried to target depth	Not assessed	Scoped out
Suspended sediment concentration and transport	Installation of Substructures/ Foundations	O	Minor (GBS) Negligible (jackets)	Not assessed	Scoped out
		D	Negligible	Not assessed	Scoped out

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
<b>Project Alpha and Project Bravo Combined</b>					
Given that the construction, operational and decommissioning effects from each Project assessed individually are not envisaged to be of high or medium effect and are likely to be local and, in many cases of short-duration, no cumulative effect from the projects combined on the physical environment are anticipated.					Scoped out
<b>The Seagreen Project Cumulative Impacts</b>					
No pathways for potential effects on the physical environment arising from the Seagreen Project to occur in combination with any other known potential development are identified, due to the localised and short term nature of effects assessed, combined with the large distances of geographical separation between projects.					Scoped out
<b>Transmission Asset</b>					
Hydrodynamic regime	Impact on hydrodynamic regime	C, D	Negligible	Not assessed	The potential impacts of the Transmission Asset have not been assessed separately in the 2018 EIA. This project was licenced in 2014 and remains unchanged, it is therefore considered a separate project. Potential impacts associated with the Transmission Asset are given consideration as part of the cumulative assessment within the 2018 EIA.
Sediments and sedimentary structures	Installation plant	C, D	Negligible	Not assessed	
	Installation of Substructures/ Foundations:		Negligible	Not assessed	
	Installation of Export cable (offshore)		Negligible in areas of mobile bedforms No impact elsewhere.	Not assessed	
	Installation of Export cable (landfall)		No change if all cable is buried to target depth	Not assessed	
Suspended sediment concentration and transport	Installation of Substructures/ Foundations	C, D	Negligible	Not assessed	
	Installation of Export cable (offshore & landfall)		Negligible (for ploughing or cutting or HDD)	Not assessed	
Hydrodynamic regime	Waves/tides	O	Negligible/Minor	Not assessed	

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
Sediments and sediment structures	Installation of Substructures/ Foundations	O	Negligible	Not assessed	
	Installation of Export cables: Water depths > 7m chart datum: Water depths < 7m chart datum:		No change if all cable is buried to target depth	Not assessed	
Suspended sediment concentration and transport	Installation of Substructures/ Foundations	O	Negligible	Not assessed	

Table 17.10 Water and Sediment Quality Summary of Impacts

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
<b>Project Alpha and Project Bravo in Isolation</b>					
Water quality	Deterioration due to re-suspension of sediments	C, D	Negligible	Not assessed	Scoped out
	Deterioration due to re-suspension of contaminants	C, D	Negligible	Not assessed	Scoped out
Water/sediment quality	Deterioration due to accidental spillages	C, O	Negligible	Not assessed	Scoped out
Water/sediment	Introduction of marine non-native / alien species	C, O, D	Negligible	Not assessed	Scoped out
Water/sediment quality	Deterioration as a result of scour impacts at WTG structures	O	Negligible	Not assessed	Scoped out
<b>Project Alpha and Project Bravo Combined</b>					
Water quality	Deterioration due to re-suspension of sediments	C, D	Negligible	Not assessed	Scoped out
Water quality	Deterioration due to re-suspension of contaminants	C, D	Negligible	Not assessed	Scoped out
Water/sediment quality	Deterioration due to accidental spillages	C, O	Negligible	Not assessed	Scoped out
Water/sediment	Introduction of marine non-native / alien species	C, O, D	Negligible	Not assessed	Scoped out
Water/sediment quality	Deterioration as a result of scour impacts at WTG structures	O	Negligible	Not assessed	Scoped out



Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
<b>The Seagreen Project Cumulative Impacts</b>					
Impacts occurring during the construction of the Seagreen Project are anticipated to be localised and persist for a short duration (i.e., days to weeks) suggesting that cumulative impacts are likely to be spatially and temporally restricted. It is considered unlikely that impacts on water and sediment quality arising from the construction and operation of the Seagreen project will interact or create a cumulative impact with other OWFs or other marine or coastal developments in the region					Scoped out
<b>Transmission Asset</b>					
Water quality	Deterioration due to re-suspension of sediments	C, D	Negligible	Not assessed	The potential impacts of the Transmission Asset have not been assessed separately in the 2018 EIA. This project was licenced in 2014 and remains unchanged, it is therefore considered a separate project. Potential impacts associated with the Transmission Asset are given consideration as part of the cumulative assessment within the 2018 EIA.
	Deterioration due to re-suspension of contaminants	C, D	Negligible	Not assessed	
Water/sediment quality	Deterioration due to accidental spillages	C, O	Negligible	Not assessed	
Water/sediment quality	Introduction of marine non-native /alien species	C, O, D	Negligible	Not assessed	
Water quality	Effects on suspended sediment concentrations and transport resulting from scour due to the presence of foundation structures and rock protection measures	O	Negligible	Not assessed	
Water/sediment quality	Deterioration as a result of scour impacts associated with ECR and cable protections measures	O	Negligible	Not assessed	

Table 17.11 Benthic and Intertidal Ecology Summary of Impacts

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
<b>Project Alpha and Project Bravo in Isolation</b>					
Benthos	Direct impact due to physical disturbance	C	Negligible	Not assessed	Scoped out
Benthos	Direct impact due to the loss of habitat	C	Negligible	Not assessed	Scoped out
Benthos	Indirect impacts due to increased suspended sediments	C	Negligible	Not assessed	Scoped out
Benthos	Indirect impacts through re-mobilisation of contaminated sediments	C	Negligible	Not assessed	Scoped out
Benthos	Direct impact due to physical disturbance caused by maintenance activities	O	Negligible	Not assessed	Scoped out
Subtidal benthos	Direct impacts due to creation of new habitat	O	Negligible	Not assessed	Scoped out
Benthos	Indirect impacts due to changes in current regime and coastal processes	O	Negligible	Not assessed	Scoped out
Subtidal benthos	Indirect impacts due to alteration to existing human activity	O	Negligible	Not assessed	Scoped out
Benthos	Impacts on benthos	D	Negligible	Not assessed	Scoped out
<b>Project Alpha and Project Bravo Combined</b>					
Benthos	Disturbance of habitat	C, D	Negligible	Not assessed	Scoped out
Benthos	Loss of habitat	C	Minor Adverse	Not assessed	Scoped out
Benthos	Habitat creation	O	Negligible	Not assessed	Scoped out

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
<b>The Seagreen Project Cumulative Impacts</b>					
Given the lack of other industries in the region, there are few activities or developments that could have a cumulative impact upon benthos. In addition, impacts upon the benthos will be highly localised and there is little likelihood of interaction of impact, particularly during construction and no impact pathway is identified. The cumulative impact of permanent habitat loss is considered to be negligible and therefore not significant.					Scoped out
<b>Transmission Asset</b>					
Benthos	Direct physical disturbance of subtidal benthic species and habitats	C, O	Negligible	Not assessed	The potential impacts of the Transmission Asset have not been assessed separately in the 2018 EIA. This project was licenced in 2014 and remains unchanged, it is therefore considered a separate project. Potential impacts associated with the Transmission Asset are given consideration as part of the cumulative assessment within the 2018 EIA.
Benthos	Direct impact due to the loss of habitat	C, O	Negligible	Not assessed	
Benthos	Indirect impacts due to increased suspended sediments	C	Negligible	Not assessed	
Intertidal ecology	Direct impact due to physical disturbance	C	Negligible	Not assessed	
Nature Conservation Designations	Impact on Nature Conservation designations (The Export Cable Route corridor overlaps with the Firth of Tay and Eden Estuary SAC (0.56% of the 15,412ha designation).	C	Negligible	Not assessed	
Benthos	Increased suspended sediments and mobilisation of contaminants leading to smothering of benthic ecology	O	Negligible	Not assessed	
Benthos	Impact due to habitat creation	O	Negligible	Not assessed	
Benthos	Indirect impacts from alteration to human activities	O	Negligible	Not assessed	
Intertidal ecology	Direct impacts due to maintenance activities	O	Negligible	Not assessed	
Benthos	Potential Impacts on benthos	D	Negligible	Not assessed	
Intertidal ecology	Potential impacts on intertidal ecology	D	Negligible	Not assessed	

Table 17.12 Archaeology and Cultural Heritage Summary of Impacts

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
<b>Project Alpha and Bravo in Isolation</b>					
Archaeology and cultural heritage	Direct impact to archaeology and heritage assets due to installation of infrastructure	C	Negligible	Not assessed	Scoped out
Archaeology and cultural heritage	Indirect impact on archaeology and heritage assets due to physical processes	C	Negligible	Not assessed	Scoped out
Archaeology and cultural heritage	Indirect impact on archaeology and heritage assets due to physical processes	O	Negligible	Not assessed	Scoped out
Archaeology and cultural heritage	Direct impacts on archaeology and heritage assets due to removal of infrastructure	D	Negligible	Not assessed	Scoped out
<b>Project Alpha and Project Bravo Combined including the Transmission Asset</b>					
The potential impacts of the Seagreen Project are considered in terms of its cumulative impacts on archaeology and cultural heritage. The potential cumulative impacts within the Seagreen Project arise from indirect impacts on archaeology and cultural heritage assets. The assessment concludes predicted impacts from the Seagreen Project to be no greater than that identified for Project Alpha and Project Bravo and is considered to be negligible and not significant					Scoped out
<b>The Seagreen Project Cumulative Impacts</b>					
Given the limited number of identified developments in the Firth of Forth region there are few activities that could have a significant cumulative impact upon archaeology and cultural heritage. As such there is minimal potential for the indirect impact to extend cumulatively to these developments and the significance of impact is likely to be no greater than that identified for the Seagreen Project and is considered to be negligible and not significant.					Scoped out

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
<b>Transmission Asset</b>					
Archaeology and cultural heritage	Direct impact to archaeology and heritage assets due to installation of infrastructure	C	Negligible	Not assessed	The potential impacts of the Transmission Asset have not been assessed separately in the 2018 EIA. This project was licenced in 2014 and remains unchanged, it is therefore considered a separate project. Potential impacts associated with the Transmission Asset are given consideration as part of the cumulative assessment within the 2018 EIA.
Archaeology and cultural heritage	Indirect impact on archaeology and cultural heritage due to physical processes	C	Negligible	Not assessed	
Archaeology and cultural heritage	Indirect impact on archaeology and heritage assets due to physical processes	O	Negligible	Not assessed	
Archaeology and cultural heritage	Direct impacts on archaeology and heritage assets due to removal of infrastructure	D	Negligible	Not assessed	

Table 17.13 Other Marine Users Summary of Impacts

Receptor	Potential Impact	Phase Construction (C), Operation (O) or Decommissioning (D)	2012 Residual Impact Significance	2018 Residual Impact Significance	Rationale for difference in Impact Significance (as relevant)
<b>Project Alpha and Project Bravo in Isolation</b>					
Other OWFs	General impacts: relates to conflicts between vessel movements, arising from spatial and temporal overlaps relating to movement of vessels and plant and to location of temporary infrastructure and works.	C, O, D	Not Significant	Not assessed	Scoped out
Military PEXAs	General impacts	C, O, D	Not Significant	Not assessed	Scoped out
Marine disposal sites	General impacts	C, O, D	Not Significant	Not assessed	Scoped out
Other non-wind farm marine activities	General impacts	C, O, D	Not Significant	Not assessed	Scoped out
<b>Project Alpha and Project Bravo Combined</b>					
The methodology applied for the 2012 Offshore ES did not consider the potential impacts of Project Alpha and Project Bravo combined for the assessment of other marine users					Scoped out
<b>The Seagreen Project Cumulative Impacts</b>					
The Seagreen Project is not expected to act in a cumulative or in combination manner with any other project to impact upon the receptors assessed. This is due to the fact that all impacts of the Seagreen Project on other existing users have been assessed as non-significant (in EIA terms) and the large distances between the Seagreen Projects and many of the other projects.					Scoped out
<b>Transmission Asset</b>					
Other OWFs	General impacts: relates to conflicts between vessel movements, arising from spatial and temporal overlaps relating to movement of vessels and plant and to location of temporary infrastructure and works.	C, O, D	Not Significant	Not assessed	Scoped out
Military PEXAs	General impacts	C, O, D	Not Significant	Not assessed	Scoped out
Marine disposal sites	General impacts	C, O, D	Not Significant	Not assessed	Scoped out
Other non-wind farm marine activities	General impacts	C, O, D	Not Significant	Not assessed	Scoped out